A PSYCHOLOGY OF PEACE:

DEVELOPMENT OF A TRANSCENDENT ONTOLOGICAL WORLDVIEW

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Abstract

Transcendence is often thought of as a topic exclusive to religion and theology, but there is a considerable amount of psychological research into self-transcendence as a beneficial state of being. Those who display a transcendent ontology tend to possess increased empathy, intrinsic self-worth, humility, self-confidence, connectedness, and present-moment living; traits necessary for a peace-driven life. Despite millennia of writings on this topic and recent studies, no known research has attempted to unravel the self-transcendence developmental process. This study offers new theory to explain transcendence development. Self-transcendence is defined here as the perception of oneself as intimately and inseparably connected to the greater whole of humanity, nature, and the cosmos. This theory was tested using 167 adolescent participants who accomplished eight self-report inventories across two waves. These inventories measured three key constructs of self-transcendence, intrinsic self-esteem, and present-time orientation, along with outcome variables of empathy and narcissism. This research addressed the question of whether direct educational intervention could impact transcendence development within adolescents. A six-week transcendence development course was designed and given to three groups of students over three years. SEM models were partially validated. Self-transcendence was impacted by intrinsic, but not extrinsic, self-esteem, however, present-time orientation acted only as a moderator to an unanticipated variable in the development process. Self-engagement, understood as a self-actualization measure, appeared to mediate between intrinsic self-esteem and self-transcendence. Validating the effect of the course, a significant relationship was found between self-transcendence and course participation. Significant correlations with the model were found for empathy, social confidence, family education, and GPA. These quantitative results, along with qualitative interviews, suggested three types of individuals within the sample, one self-transcending and two impeded types. All three types conformed to outcomes seen in research on conditional parental regard, as well as self-theories of intelligence. The data suggest that families and communities ought to encourage intrinsic growth within individuals, while limiting expectations for success and conformity. Even with intrinsic valuations, individuals must engender positive self-narratives to actualize intrinsic strengths. Understanding the construction of this development process provides avenues to promote self-transcendence through education, inculcating beneficial and pro-social outcomes for peace-driven societies.

Table of Contents

List of Tables

List of Figures

List of Abbreviations

Adjusted Goodness of Fit Index (AGFI)

Adult Self-Transcendence Inventory (ASTI)

Aspiration Index (AI)

Cognitive & Affective Mindfulness Scale – Revised (CAMS-R)

Collaborative for Academic, Social, and Emotional Learning (CASEL)

Comparative Fit Index (CFI)

Confirmatory Factor Analysis (CFA)

Emotional Self-Acceptance (ESA)

Exploratory Factor Analysis (EFA)

Gerotranscendence Scale – Revised (GS-R)

Goodness of Fit Index (GFI)

Grade Point Average (GPA)

Intercultural Awareness (IA)

Interpersonal Reactivity Index (IRI)

Intrinsic Value Orientation (IVO)

Mindful Attention Awareness Scale (MAAS)

Modification Indices (MI)

Moral Character Education (MCE)

Narcissistic Personality Inventory (NPI)

Normed Fit Index (NFI)

p of Close Fit (PCLOSE)

Parental Conditional Negative Regard (PCNR)

Parental Conditional Positive Regard (PCPR)

Post-Traumatic Growth (PTG)

Root Mean Square Error of Approximation (RMSEA)

Root Mean Square Residual (RMR)

Royal Society of Arts (RSA)

Self-Awareness (SA)

Self-Engagement (SE)

Self-Transcendence Scale (STS)

Self-Understanding (SU)

Social-Emotional Learning (SEL)

Socioemotional Selectivity Theory (SST)

Technology, Entertainment, and Design (TED)

Time Horizon Orientation (THO)

Toronto Empathy Questionnaire (TEQ)

Transcendent Ontological Worldview – Model/Factor (TOW-M/F)

Transformative Learning Theory (TLT)

Forward: A Personal Motivation

The development of this dissertation research evolved over the course of several years, but began with a very personal quest for understanding. This quest originated after a series of personal tragedies which involved the loss of my niece, brother, and best friend. As a result, I underwent a radical personality and values transformation which left me a different person from the one I had been. The loss of this old self occurred in a flash, literally overnight in 2009. Waking with no understanding of who this new person was left me struggling for answers. What was clear was that my old life wasn't right for me anymore. I quit my PhD program in Astrophysics the next day, which had been my goal since I was 11 years old, and declared my intention to leave my career as an Air Force Officer and an astrophysicist.

In my quest for clarity, I began to look in new directions for morality, values, culture, and generally how to live my life. It was then that I stumbled upon a book by Jonathan Haidt (2006) titled *The Happiness Hypothesis: Finding Modern Truth in Ancient Wisdom*. Out of all the things that book taught me, most importantly, I learned that what I was going through was not unique or uncommon and even had a name within clinical research. Realizing that I was not alone in my struggle, I clearly remember bursting into tears as I read Haidt's book in the Albuquerque International Airport. Beyond that, Haidt's words illuminated and inspired me in the areas of humanistic psychology and the positive psychology movement. It was then that I knew I was going to become a psychologist and try to understand what had happened to me. Further, I had no question that despite so much loss and tragedy, I had somehow become happier, more fulfilled, and generally more engaged with the joys of life. There was a fundamental need to understand why this happened, and that desire drove all of the new aspirations I had found. If I could find the understanding I sought, there might be a way to share it with others. Therefore, I entered the Educational Psychology program with the hope of answering the question: Could the positive benefits of this psychological transformation be educated in a controlled manner, without the need for individuals to experience extreme trauma? Even though my explorations into these topics have expanded greatly since then, and is not a direct research question, it is the origin of this research.

Chapter 1: Introduction

Issue

Over the last twenty years, there has been an explosion of psychological research focused on the positive aspects of human growth and development. This branch of research has been aptly named "positive psychology" in response to the primarily negative view with which previous psychological perspectives have taken in the past (Haidt, 2006). Through these revelatory views of positive psychology, new light has been shed on questions that were once the realm of philosophy and theology alone: These may be questions such as what makes people happy, how to live a good and peaceful life, or why some people are driven toward narcissism and hostility while others toward humility and altruism? Researchers are now coming to some astonishing insights about these types of questions (Snyder & Lopez, 2001; Greenberg, Koole, & Pyszczynski, 2004). However, despite the acquisition of this knowledge, adoption of its conclusions in societal institutions and the zeitgeist have been slow.

In particular, the education system continues to reflect its industrial era roots (Robinson, 2010). Courses are focused primarily on the acquisition of skills for occupational success and national economics. Less priority is given to helping young people develop values, attitudes, and perspectives which will allow them to lead fulfilling and connected lives as fully actualized human beings. This type of development tends to remain outside the domain of the institutionalized education systems. There's little doubt that the past focus on educating for skills that develop success and wealth have yielded tremendous progress. However, even though technological advances continue, progress toward human flourishing has all but come to a halt. Happiness and life fulfillment have stayed steady for the last 65 years, and the number of people who believe they are "very happy" has actually decreased. During this same period, depression has skyrocketed and even the most affluent countries are marked by high suicide rates (Easterbrook, 2004, pp. 163-164). The people of these educated and skillful nations have more than could possibly be envisioned 250 years ago, yet they seem to be lost in a world where many can't find personal meaning and happiness. Beyond this saddening realization, bigotry, intolerance, violent crime, and political squabbles still permeate the modern world.

In a letter to his wife Abigail, John Adams explained that "I must study politics and war that my sons may have liberty to study mathematics and philosophy. My sons ought to study mathematics and philosophy. . . . commerce and agriculture in order to give their children a right to study painting, poetry, [and] music. . . ." (1780). His intention for positing this thought was to say that each generation should be working to create a better world for the next so that one day children would never have to involve

themselves with the depravities in the human condition. The very concept of societal progress is a relatively new perspective on the great experiment of civilization brought about by Enlightenment thinkers. The notion that societies or nations could evolve to become something greater offered amazing new potential to a world that had been steeped in oppressive autocratic rule (Simons, 2009).

It appears that Western civilization has done an extraordinary job at satisfying the bottom two levels of Maslow's Hierarchy of Needs, physiological and safety, but struggles to fulfill the higher non-material levels (Conley, 2007; Easterbrook, 2004; Kasser & Ryan, 1993; 1996). As a whole, society has only taken baby steps in pushing the masses toward Maslow's highest level of self-transcendence. Now that the baser needs of modern society have largely capable of being met, what is required is an expansion toward fulfilling these higher pursuits. After the rise of humanistic and positive psychology, there is an abundance of knowledge about how one can live a compassionate, fulfilling, and meaningful life while minimizing narcissistic, greedy and ultimately empty ones. With the stagnation in the growth of personal happiness and fulfillment, it may be time for another Enlightenment style revolution in societal structures. This one would be directed at taking humanity further up Maslow's pyramid. However, implementing such a progressive leap forward will require a substantial empirical and theoretical foundation from which to base reforms, especially within the educational system. If the insights and conclusions from modern positive and humanistic psychology are to be realized across society, moving everyone up the rungs of Maslow's Hierarchy, then ubiquitous and systematic education is needed.

Significance of Research

This research seeks to address the question of how education can be transformed to take those next societal steps up Maslow's Hierarchy. Ultimately, the hope is to uncover the educational mechanisms which can be used to drive a person toward greater connectedness with others, humanity, nature, and the cosmos, and better sustain the highest level of Maslow's Hierarchy, self-transcendence (Maslow, 1972). Specifically, it is the idea that a structured educational curriculum can increase one's transcendent living on a day to day basis. If such education is possible, it may lead to less narcissism (more humility) (Westen, 1990), greater levels of intrinsic self-esteem (Kasser & Ryan, 1996), an increased focus on social justice (Endicott, Bock, & Navaez, 2003; King & Baxter Magolda, 2005), and greater empathy and compassion (Martin & Kleiber, 2005; Sheldon & Kasser, 1995). It is hoped that the research presented here can aid in taking the first steps toward an educational process which can produce such benevolent individuals. Conceiving of an educational system which bases its success, not

on test scores in math and English, but rather on the depth of compassion students feel and the humility with which they engage the world, makes research such as this one of the most worthy causes imaginable.

Beyond the direct social outcomes and benefits to those who might undertake such a course, there are several positive scientific outcomes for the research. The theory and process model proposed below offers new insights into the psychological development of pro-social versus anti-social thoughts and behavior that could be leveraged, not just in education, but in a variety of contexts such as workplace environments (Cranton & Carusetta, 2012) or approaches to crime and punishment (Tangney, Mashek, & Stuewig, 2007; Williamson, Sandage, & Lee, 2007). Conceptions of "education" are often overly constrained to formal institutions, however, the psychological processes that govern learning and development are not unique to the classroom. Growth can occur anywhere, at any time. Additionally, as was mentioned above, the positive psychology movement is relatively young and information is spread out widely. This research necessarily brings together a number of these seemingly disparate areas into a more integrated whole. In order to address the question of how Maslow's highest level can be promoted through education, at least four different research areas must be brought together in a cohesive manner. Establishing and integrating the synergistic overlap among various psychological theories is certainly a worthy pursuit. If accurate, this would simplify the fields of research by finding common connections and unifying the disciplines. The result of this integration, is a new, expanded, and potentially revolutionary theory that elucidates a path for human growth toward the ultimate realization of intrinsic potentials and social "oneness."

Western science functions on a philosophical basis of positivism to some degree. That is, there is an objective reality from which knowledge, truth, and information can be understood and interpreted. The rigidity of such an axiom is dependent of the field of science, with psychology more loosely adhering to it than physics or chemistry. Though, even in psychology there is still desire for various theories to hold some measure of explanative or predictive power across models. Analogously, one may view an irregularly shaped boulder from many different angles, and obtain unique views and information about the boulder. Each unique perspective adds knowledge and depth of understanding about the boulder, but in a positivist view, everyone should agree the object is indeed a boulder and not a bird. Such is the hope of synergy across differing psychology theories. The perspective, knowledge, and interpretation may vary or even be divergent, but the basic nature of the observed reality should be consistent for the purposes of content and predictive validity.

Theoretical Framework

The theoretical framework for this research primarily derives from Maslow's Hierarchy of Needs (Maslow, 1964; 1968; 1972). However, it is important to note that the version of this hierarchy is taken from Maslow's later conceptions where he breaks the highest level of need into two, namely self-actualization and self-transcendence. For a number of reasons related to his failing health, and resistance of the psychological community to embracing the idea of self-transcendence, this adapted model never became part of mainstream teachings (Koltko-Rivera, 2006). However, Maslow's later version which includes self-transcendence, forms the cornerstone of this research. This means that the perspective taken in answering research questions involves understanding what is required to satisfy each level of need so that an individual may focus themselves on the next higher level, and what may limit or stunt progress up the pyramid of needs.

Further, this theory of needs satisfaction is used for the framework because of an often overlooked element of the self-esteem level which Maslow has described since its inception (Maslow, 1954). Specifically, he broke the self-esteem need into two dichotomous forms, self-respect and achievement. Based on that distinction, the following theory contends that, which of these two paths an individual uses to fulfill self-esteem has reverberating effects on the higher growth needs. Such effects on the growth needs will engender a new modified hierarchy of needs with a dual path. The specifics of this modification will be discussed below, but it is important to note here that using Maslow as the theoretical framework is critical due to his descriptions of self-transcendence and delineation of self-esteem types.

Indeed, there may be other perspectives from which to understand such personal growth. For instance, both morality and multi-cultural understanding share a number of similarities with Maslow's progression (Bennett, 2004; Christensen, 1989; Endicott et al., 2003; Kohlberg, 1971). Such commonalities should not be surprising, as personal growth and development necessarily impacts many perceptions, values, and beliefs of the individual. Although, an appropriate point of discussion is which construct is driving the others. Does growth in motivational needs satisfaction drive changes in values and beliefs? Is it reversed, or is it bi-directional? This research is not setting out to address such a broad and grandiose question. Instead, it is taken as a research assumption that Maslow's needs satisfaction is the most foundational and fundamental source of growth, and that this drives other related constructs.

The Role of Science in Transcendence

In the past, investigating a topic such as transcendence was seen as beyond the scope of science, and even today there is still some resistance by traditionalists to research in these areas (Baumeister, 2002). It is an understandable concern, as transcendence has long been the purview of religious education and a spiritual quest. However, this need not be the case, as transcendence is a measurable psychological and neurological phenomenon. Therefore, it is possible to investigate such a concept from a secular perspective. Indeed, empirical studies into transcendence are a valid scientific pursuit which have already been undertaken by numerous scientists in many differing areas of research (Cloninger, Svrakic, & Przybeck, 1993; Johnstone, Bodling, Cohen, Christ, & Wegrzyn, 2012; Levenson, Jennings, Aldwin, & Shiraishi, 2005; Piedmont, 1999; Reed, 1991; Tornstam, 1994). Ultimately, what determines if a subject is within the bounds of science is whether material evidence about a construct can be gathered in a systematically repeatable process, which allows for falsifiability of theories (Popper, 1968). The research conducted here will well satisfy those requirements by deriving and operationalizing transcendence with the following definition:

> A perception of reality in which one perceives oneself as intimately and inseparably connected to the greater whole of humanity, nature, and the cosmos. Boundaries between Self and Other, as well as in-group and out-group, disintegrate as the Self becomes seen as intertwined with the rest of the universe. This state exists on a spectrum from total separateness to total oneness.

The full derivation of this construct will be accomplished in chapter two, but this core concept is outlined here to give the reader a clear understanding of what this research investigated, and that testing can be devised which can measure and falsify theories involving the construct.

This study only acknowledges that human beings do experience states of transcendence, and that these states tend to result in beneficial growth and life fulfillment. This is a measurable and testable assertion. What is not addressed within these pages is the objective reality of transcendence. That is, is transcendence the result of specific brain activity which gives an individual the perceptual illusion of connectedness, or is it that one's consciousness or "spirit" is actually connecting with the greater whole of the universe? The very attempt to answer such a question goes beyond the bounds of scientific investigation, as it is not possible to gather material evidence which can either validate or invalidate the later of these claims. As such, it is left to philosophers and theologians to explore the question of which reality is more True.

Research Questions

In order to investigate the above issues and possible solutions, two research questions were advanced based on an extensive literature review of topics linked to the development of transcendence:

1. How well does the transcendence educational path model explain variations among the three variables of Intrinsic Value Orientation (IVO), Time Horizon Orientation (THO), and a Transcendent Ontological Worldview (TOW)?
2. To what degree does sustained and focused education toward a) unseating one's socialized worldview, b) establishing intrinsic self-esteem, and c) a present-time orientation to increase a student's average experience of a TOW?

The first research question is meant to address the reliability and validity of the two models created for this research. The second question's purpose is to ascertain the effectiveness of teaching methods, based on the models from question one. In the proceeding literature review, the basis for these two research questions will be established. In particular the two theoretical models from the first question will be built based on the litany of research conducted across wide areas of the motivation, growth, and development literature over the last fifty years. The synthesis of such a diverse body of knowledge in this research study has led to some strikingly new, yet well supported, conclusions about how individuals progress toward higher and more fulfilling needs satisfaction.

Both of these research questions may have critical importance for the current state of psychology, society, and the world. The essence of what these questions are asking is whether it is possible to directedly grow, through educational courses, people who are more satisfied, fulfilled, and intrinsically contributing community members (research question two), and what is the development process of such growth (research question one). In short, can education be a tool for helping individuals develop meaningful lives, where they feel their innate selves are valuable and valued by the communities in which they inhabit. As discussed earlier in this chapter, the last several hundred years have advanced the satisfaction of material needs across the globe, but to progress further science must turn its attention to the non-material, by addressing questions of how to promote fulfillment and meaning within the citizenry of civilization. The research questions presented above seek to address these issues by developing new theory that can explain such a developmental process that leads to a more fulfilling and meaningful existence, and then testing that by examining a) how well individuals'

internal and external worldviews are explained by the process, and b) how effective education intervention can be at redirecting those whose ontological perspective prevents people from feeling valuable and connected to the world. The investigations that derive from these two research questions may have ramifications for the quality of life of many who possess these feelings of worthlessness and disconnection.

Chapter 2: Theory Development & Literature Review

In order to address the two research questions described in chapter one, a robust and comprehensive theory is needed to describe how the development of transcendence can be hindered or facilitated, particularly through direct educational intervention. The elucidation of such a theory will be accomplished in four parts, with each one building upon the previous. Those four elements are as follows: 1) Establishing how transcendence is defined and understood within a secularly scientific context. 2) Clearly laying out the developmental trajectory which drives one toward or away from achieving the highest Maslovian state. 3) Situating specific psychological processes which can be leveraged to intentionally steer an individual toward a transcendent ontology. 4) Defining a specific education framework and educational goals for a course designed to promote the development of transcendence. This fourth section also includes an examination of related, but ultimately rejected educational approaches to transcendence development. Given this necessary partitioning of the theory, the proceeding chapter will be broken up in a similar fashion, however, a final additional section is appended which explores the identity development process already occurring within the targeted participant group, adolescents. The first of these four theoretical sections, defining secular transcendence, may initially seem like a difficult task. However, there is already a wealth of scientific research that can be utilized to describe and operationalize this construct.

Operationalizing Transcendent Ontological Worldview

Three words are used to fully describe this transcendence variable, and each was chosen carefully to ensure that the full scope of this construct was well represented. The first of these, "transcendence," derives primarily from Maslow's descriptions of transcendence and peak experience (Maslow, 1964; 1968; 1972). If one qualitatively examines the breadth of transcendence descriptions provided by Maslow, a clear theme emerges. That is, transcendence involves the loss of a separate self in one's perception of their place in the universe. In its place is a connectedness and integration with the much grander elements of humanity, nature, and the cosmos. This theme permeates Maslow's image of transcendence, but here are a few of the more potent examples from his book, *The Further Reaches of Human Nature* (1972):

> Transcendence refers to the very highest and most inclusive or holistic levels of human consciousness, behaving and relating, as ends rather than means, to oneself, to significant others, to human beings in general to other species, to nature and to the cosmos (p. 269).

> One can even transcend individual differences in a very specific sense. The highest attitude toward individual differences is to be aware of them, to accept them, but also to enjoy them and finally to be profoundly grateful for them as a beautiful instance of the ingenuity of the cosmos – the recognition of their value, and wonder at an individual difference (p. 267).

> This is a special phenomenological state in which the person somehow perceives the whole cosmos or at least the unity and integration of it and of everything in it, including his Self. He then feels as if he belongs by right in the cosmos. He becomes one of the family rather than an orphan. He comes inside rather than being outside looking in. He feels simultaneously small because of the vastness of the universe, but also an important being because he is there in it by absolute right. He is part of the universe rather than a stranger to it or an intruder in it. The sense of belongingness can be very strongly reported here, as contrasting with the sense of ostracism, isolation, aloneness, of rejection. Of not having any roots, of belonging no place in particular. After such a perception, apparently one can feel permanently this sense of belonging, of having a place, of being there by right . . . (pp. 266-267).

What becomes clear from this Maslovian view is that there is a holistic transition from the more typical self-focus to one which is integrated with a universal whole. Though this may initially seem almost religious, both Maslow and this theory are speaking in very strict secular terms. These descriptions, though poetic, are supported by a number of other research areas as a valid area for psychological investigation (Cloninger et al., 1993; Levenson et al., 2005; Piedmont, 1999; Reed, 1991; Tornstam, 1994).

For instance, the most notable usage of transcendence in social science research is through an inventory known as the Temperament & Character Inventory (Cloninger et al., 1993). This scale is widely used in the psychiatric and psychological spheres to assess individuals' personality and well-being. It has been translated into numerous languages and cited hundreds of times in other studies. The scale is comprised of seven independent factors, four temperament traits and three character traits, with self-transcendence among the later three. Acknowledging Maslow's original concept of transcendence, Cloninger et al. defines the self-transcendence character trait as ''the extent to which a person identifies the self as . . . an integral part of the universe as a whole'' (p. 975). In concert with Maslow's definition, this metric's characterization is quite similar in form.

In further applications, Reed (1991) applied the concept of self-transcendence toward understanding the needs and motivations of elderly patients in the field of nursing. Her work in the area led to one of the first self-report inventories for self-transcendence and remains a valid instrument today. Her research developing this measurement tool defined a four-factor model which is described as altruistic involvement (Generativity), self-growth (Introjectivity), perception of time (Temporal Integration), and acceptance of mortality (Body-Transcendence). In addition to Reed's research in the nursing field, Tornstam (1994) put forward the theory of Gerotranscendence, which he claims is a more accurate perspective of the aging process. Instead of viewing the golden years of life as a gradual decline from one's psychological prime, gerotranscendence approaches this inquiry by looking at these later years as a different, but equal, psychological development with its own necessary set of motivations, needs, and values. This is akin to how developmental psychology views the needs and motivations of adolescence as necessarily divergent from those of early adulthood, and certainly midlife. Through this lens, Tornstam also developed a measure of transcendence, which was comprised of two factors: Cosmic Transcendence and Ego Transcendence. In Tornstam's work he defines these dimensions as:

> an increasing feeling of cosmic communion with the spirit of the universe; a redefinition of the perception of time, space, and objects; a redefinition of the perception of life, death, and a decrease in the fear of death; and an increasing feeling of affinity with past and coming generations. . . [Ego transcendence entails] a decrease in the interest in superfluous social interaction; a decrease in the interest in material things; a decrease in self-centeredness; and an increase in time spent in meditation (pp. 208-209).

Again with this description of transcendence, one can see that there is a deeply held perception of integration with a larger universe, an integration of time, greater altruistic motivations, and an acceptance of mortality. This is not a coincidental result, but as the below theory will explain, necessary characteristics of the developmental process which leads one toward transcendence.

These are not a comprehensive account of all metrics and researchers who have attempted to measure the self-transcendence construct, however, it does illustrate a clear commonality regarding the general composition of the concept. That is, a connectedness and integration of self with others, humanity, nature, and the cosmos.

Ontological Worldview

Despite having this clear picture of what is meant by transcendence, it is still not enough to fully understand how this theory is investigating and measuring transcendence. Primarily, this is driven by the need for clarity with an abstract and subjective concept, therefore more specificity is needed. Firstly, "ontology" refers to the way in which individuals perceives their reality. In this context, a transcendent ontology is one in which an individual fundamentally perceives oneself as intimately connected with the world around them. Other words like values or beliefs tend to imply some level of agentive choice to believe, however, this is not so for one's perception of reality. Instead, an individual's values and beliefs are built upon how they perceive their reality and the meanings found within it. As such, perceiving the world transcendently as an interconnected whole is not a conscious choice, but rather the result of ontology.

However, this does not mean that a transcendent ontology is beyond control, or cannot be molded. If this were true, there would be no purpose to studying its development in the context of education. The term "worldview" is used to emphasize the evolving and mutable nature of a transcendence. A transcendent reality is not one that is statically unchanging throughout one's life, but rather is developed, changed, and altered through interactions with one's family, education, environment, and societal culture. Koltko-Rivera (2004) described a worldview as "a set of assumptions about the physical and social reality . . ." (p. 3). He explained that the source of these reality assumptions are the result of all experiences through a person's life. In this way, worldview is somewhat akin to meta-schemas which govern the whole of one's perception of reality. Whereas Koltko-Rivera disagrees with this characterization, there are others who do draw this connection between worldview and schema (Janoff-Bulman, 1989; Liu, 2002). It may seem odd to characterize one of Maslow's need levels as a worldview, however, in his own writing he expressed this exact depiction, and offered it as a naturally extended perspective:

> [A] characteristic of the human organism when it is dominated by a certain need is that the whole philosophy of the future tends also to change. For . . . the . . . hungry man, . . . life itself tends to be defined in terms of eating. Anything else will be defined as unimportant. . . . Such a man may fairly be said to live by bread alone. . . . All that has been said to the physiological needs is equally true [of safety]. . . . the dominating goal is a strong determinant not only of his current world outlook and philosophy but also of his philosophy of the future and of values. Practically everything looks less important. . . .A man in this state, if it is extreme enough and

> chronic enough, may be characterized as living almost for safety alone. (Maslow, 1954, pp. 37, 39)

This domination of worldview by a particular need can be extended all the way to the apex, self-transcendence need. At this level, a person's world outlook, philosophy, values, and future would come to be defined by a transcendent worldview.

The composite construct of an ontological worldview is then an individual's fundamental perception of reality as subjectively constructed through their family, culture, and other personal life experiences. Within that experientially derived reality, the degree to which a person perceives themselves as an integrated part of a cosmic network characterizes their TOW. An important distinction of this variable is that there are degrees of transcendence. Often transcendence is thought of as discrete and transient experiences where an individual loses all sense of time and space (James, 1902; Maslow, 1964). However, this extremum of transcendence is not what is being investigated here. According to this, rather than transcendent experiences being extreme, isolated, and transient losses of self, they exist as a state of being that range in the degree of one's lived ontology. Such an assertion is supported by recent neurological research into transcendence. Professor of Neuropsychology Brick Johnstone recently published a study exploring transcendence in participants with damage to their right parietal lobe (Johnstone et al., 2012). In this latest study, he found that indeed patients with impaired right lobes showed an increased sense of transcendence and connections beyond the self. In an interview describing his work Johnstone claimed that, "When the brain focuses less on the self (by decreased activity in the right lobe) it is by definition a moment of self-transcendence. . . . It is the sensation of feeling like you are part of a bigger thing" (Raushenbush, 2012). Further, other studies have shown that this ontological state of decreased Self-focus (controlling parietal lobe activity), can be fostered. Both Buddhist monks and Franciscan nuns have been examined during intense meditation and prayer, and found that they too have learned to decrease functioning of the right parietal lobe. (Newberg et al., 2001; Newberg, Pourdehnad, Alavi, & O'aqili, 2003). Therefore, the degree of activity in the right parietal lobe can have an average daily activity rate that is lower for some individuals, while higher for others. This would then allow for differing degrees of transcendent ontological experience for different individuals. Whereas peak experiences may represent the extreme end of the transcendence spectrum, it is not of great interest to this research, as it is only one point on a large scale. Finally,

consolidating the entirety of the preceding discussion, an operationalized definition of TOW can be described as:

> A perception of reality in which one perceives oneself as intimately and inseparably connected to the greater whole of humanity, nature, and the cosmos. Boundaries between Self and Other, as well as in-group and out-group, disintegrate as the Self becomes seen as intertwined with the rest of the universe. This state exists on a spectrum from total separateness to total oneness.

It should be noted that individuals do not exist at a single point along such a transcendence spectrum. Instead, there are likely macro and micro fluctuations along the spectrum across weeks, days, or even hours. These variations may potentially arise from any number of biological and experiential factors such as hunger, sleep, relational events, or personal achievements. Nevertheless, the definition of TOW given above presumes that over time such oscillations center around an average value that possesses greater stability. Conceptually, one may think of this like a normal distribution, with every individual described by a particular mean and standard deviation. At any instant in time, an individual may find themselves somewhere along this curve, but across time there exists a relatively stable mean. The proceeding discussion of transcendence development is focused on understanding how the mean of TOW experience may be shifted toward greater oneness, regardless the size of that shift. Whenever TOW is referred to in this document, it should be conceptually understood as this averaged temporal value, and not a specific moment in time.

Progressing Up Maslow's Hierarchy

Of course, it is important to define and operationalize the ultimate goal of one's research. However, it is not about studying the end state alone, but additionally the developmental and educational processes which lead one toward greater TOW. In addressing the developmental aspect of this growth, it is necessary to look further down Maslow's pyramid to understand how an individual may be driven in the direction of oneness or separateness. To accomplish this, it is critical to make a distinction between deficiency needs and growth needs.

Deficiency needs are the bottom half of the needs pyramid and are encapsulated by the physiological, safety, belonging, and self-esteem needs. Fulfilling the needs for each of these four levels is considered necessary for daily functioning. In the event that any of them is not appropriately satisfied, an individual may experience stress and anxiety over the "deficit" until a means of satisfaction can be reestablished (Maslow, 1954; McLeod, 2016). This process necessitates a constant maintenance

of the deficiency needs, and if there is a decrease in them, attention turns toward filling that loss. Examples of such a deficit are quite common and could manifest themselves in any number of circumstances to include seeking food to sate hunger or starvation, installing extra home protections after a series of neighborhood break-ins, looking for family support after experiencing rejection or ostracization, or playing a video game to get a skilled victory after failing an exam. The satisfaction of these deficiency needs drive most of a person's behavior and thoughts on a day to day basis. However, the means with which a person desires to fulfill their needs can vary widely (Maslow, 1954; Oishi, Diener, Lucas, Suh, & 1999). One important note is that every person has multiple ways of satisfying their deficiency needs, therefore, a loss in one area may be compensated for in an entirely different manner than the initial loss. For instance, a manager who fails to get the promotion she was seeking may have her self-esteem lowered, but she can't simply find another promotion opportunity immediately. Instead, she may seek to exercise her positional power over her employees to reconstitute lost self-esteem. Deficiency needs are like a bucket that need to be constantly filled to the brim. When some of the liquid spills out it must be replaced, but there are innumerable choices of what liquid to fill the bucket with.

In contrast to deficiency needs are the growth needs of self-actualization and self-transcendence. In some more discriminating models, the self-actualization need is further separated into the levels of cognitive, aesthetic, and then self-actualization (McLeod, 2016). This is an acceptable depiction of the growth needs, but is not useful or illuminating for the purposes of this study. All that is necessary to understand is that growth needs, unlike deficiency needs, are not required for daily functioning. As a result, these act very differently than their lower level counterparts. Once deficiency needs are sufficiently satisfied, attention can be turned toward growing and expanding the self. Self-actualization, as the name implies, is the process of realizing the unique potential of one's self and putting those realizations into action. These usually manifest themselves in terms of creative expression, moral consciousness, educational pursuits, and acceptance of self and others (Maslow, 1968; 1972). Engaging in these higher pursuits is not an absolute mandate, but rather a choice that one can undertake. This is because growth needs are not like a bucket that needs to be kept full. It can better be thought of as an ever expanding balloon or membrane; the more liquid that one fills it with, the larger the volume. Conversely, if one chooses to put nothing inside, then there is no inner volume to fill in the first place. Continuing with this analogy, the volume of the balloon could be thought of as

the need satisfaction in regards to self-growth. As was the case with deficiency needs, the choice of liquid is dependent on the individual and what type of personal growth is best for that individual.

The Dual Paths to Need Satisfaction

As mentioned in the introduction, Maslow made an interesting qualification regarding the self-esteem level: a deficiency need. Here he characterized two different methods of satisfying the need, achievement and self-respect (Maslow, 1954; McLeod, 2016). Achievement-based self-esteem centers upon how others perceive the individual in the context of cultural success and prosperity, e.g., income level, job title, attractiveness, etc. On the other hand, self-respect-based self-esteem centers upon how one perceives themselves as a prosperous human being, e.g., happiness, knowledge, family, societal contributions. Examining this more accurate pyramid with two paths through the self-esteem level, one should note an interesting feature of Maslow's paradigm. That is, even though he drew a distinction between different types of self-esteem, all other need levels remain unchanged. Both methods were seen as equally valid ways of fulfilling that need, and had no reverberating impact on one's ability to satisfy the other needs.

This is the point where the research presented here diverges considerably, and the transcendence development model contends that there are significant ramifications to the growth needs as a result of how one satisfies their self-esteem desires. Such a position is well supported and becomes quite evident once one examines the litany of literature produced since the mid 1980's. Deci & Ryan (1985) wrote a paper titled *Intrinsic motivation and self-determination in human behavior*, which ushered in an entirely new area of motivational research. In that paper, the authors established a disparity between intrinsic and extrinsic valuations which drive motivation. It is understood that values and motivation are separate constructs, but are highly intertwined. Values can be defined as a set of beliefs or conceptualizations about what is desirable (Dawis, 1991; Kluckhorn, 1951; Parks & Guay, 2009). Such perceptions are derived from both one's sociocultural environment and unique interests and personality traits. Of importance to understanding values is that they remain internal to the individual and are not associated with action, which is the realm of motivation. Whereas values encapsulate what is desirable, motivation is the desire itself to satisfy one's needs through achieving goals. The link between the two constructs is that values help prescribe what and how one's motivational goal desires ought to be achieved. In contrast to values, motivation is related action through goal setting and goal striving (Austin & Vancouver, 1996; Pinder, 1998). That is, there is a practical and salient implementation of needs fulfillment that motivation enacts, albeit with values

ultimately steering the course cognitively and affectively in the background through desirability beliefs. As such, due to the close interrelatedness of values and motivation, it is difficult to entirely separate the two constructs.

When discussing self-determination theory's concepts of intrinsic and extrinsic, this research attempts to use the constructs of values and motivation and as precisely as possible. Beginning with the different belief structures which drive motivation, extrinsic values are those that have been culturally prescribed by society and may or may not satisfy the basic psychological needs of the individual. In Western societies, these typically take the form of desires for materialistic wealth, personal attention (fame, power, prestige), and beauty. In contrast, intrinsic values are those that are derived from internal psychological needs, irrespective of external value systems. Some characteristics of intrinsic values are self-cultivation and knowledge, emotional connectedness with others and the world, and community engagement (Sheldon & McGregor, 2000). The descriptions of extrinsic and intrinsic bear a striking similarity to Maslow's self-esteem distinction of achievement versus self-respect. Indeed, Maslow may not have had this specialized terminology yet, but he was essentially describing the same concept. Therefore, understanding Maslow's hierarchy in terms of intrinsic and extrinsic valuation necessitates both evaluations of the quality of different types of self-esteem and modifications to his original hierarchy. To fully grasp the nature of these evaluations and modifications, it is essential to explore the traits that extrinsically and intrinsically oriented individuals tend to possess.

As one is socialized into a culture, one may assimilate cultural values that are both enhancing to psychological well-being (aligned with intrinsic motivational needs), and destructive to well-being (opposed to intrinsic motivational needs) (Kasser & Ryan, 1993). Those who adhere greatly to destructive extrinsic values are seen as having a "non-optimal development trajectory" where psychological needs are not met and personal strengths are not capitalized upon (Sheldon & McGregor, 2000). Sheldon & McGregor went on to state that:

> . . . strong extrinsic value orientations evolve as a compensation for developmental insecurity or for deficiencies in psychological need-satisfaction. . . . The excessive search for external commodities such as attention, money, or admiration may represent the person's efforts to obtain missing feelings of self-worth. (p. 405)

In this view, one attempts to maximize one's self-esteem. However, if their developmental track does not fully support intrinsic growth, then they are apt to acquire extrinsic sources of self-worth. It is

important to reiterate that when filling the "needs bucket," it is not necessary to be overly discriminating as to what type of liquid is poured inside, even if that liquid is highly corrosive. Further, the commodification of self-esteem presents a humanistic challenge, in that the acquisition of these commodities tend to take priority over the well-being of others. This results in a number of anti-social behaviors and attitudes. Experimental research has demonstrated that those individuals who are extrinsically oriented tend to show decreased capacity for empathy (Sheldon & Kasser, 1995), less stable self-esteem characterized by higher insecurity (Sheldon & Kasser, 2008), increased greed but decreased spirituality (Cozzolino, Staples, Meyers, & Samboceti, 2004; Cozzolino, Sheldon, Schachtman, Meyers, 2009), and a willingness to exploit natural resources and others for personal gain (Sheldon & McGregor, 2000). Ultimately, maintaining high self-esteem - the feeling that one has value in the world - is a driving force for all humans (Greenberg et al., 1990). The form this self-esteem takes is a result of conceptualizations of self, which in turn are culturally derived from socialization. For instance, Heine, Lehman, Markus, and Kitayama (1999) argued that the need for positive self-regard is a Western construct, and that Eastern self-regard does not require this. Indeed, there is a difference between high self-esteem and positive self-esteem. High self-esteem only means that one feels their value to the world is real and salient. In contrast, positive self-esteem additionally requires that their value be self-promoting; e.g., "people like me," "others see the quality of my work," or "I am an influential person." The feeling that one has worth in the world does not necessitate that worth be self-enhancing. It should be noted, that cultural socialization is an inescapable process that affects everyone's worldview and perceptions to some degree no matter how secure their developmental paths may have been. Worldview provides each individual a way to conceive of the self, along with behaviors, values, perceptions, and beliefs (Ryan & Deci, 2000). The key element of each worldview is the degree to which it either supports one's self-explorations, or conversely demands unquestioning assimilation and conformity, but these may be domain specific. An individual's culture and community may encourage self-exploration in certain areas, while being highly restrictive toward self-discovery in others.

Intrinsic valuation, by contrast, is focused on self-understanding, cultivation of personal strengths, helping others, and social engagement. Primarily achieving high self-esteem in this manner is often the result of a positive and supportive developmental track (Sheldon & McGregor, 2000). That is, as intrinsically unique thoughts, desires, and traits emerge in an individual, their exploration is encouraged by family and community across most areas of self-discovery. A person whose self-esteem is based primarily on internal factors which cannot be easily removed, rather than externalized

commodities, is considered a more stable state of self-worth (Sheldon & Kasser, 2008). Just as extrinsically oriented individuals tend toward anti-social behaviors, intrinsically oriented ones tend toward more pro-social ways of being. Empathy, altruism, and concern for nature are all enhanced for the intrinsic person (Sheldon & Kasser, 1995; Sheldon & McGregor, 2000). This shift toward social concern is even seen in the causes which intrinsic persons choose to engage in, as they are typically more involved with social justice issues than their extrinsic counterparts (King & Baxter Magolda, 2005).

Such a stark contrast between intrinsic and extrinsic leads to some heartening conclusions that are commensurate with humanistic psychology as a whole. Specifically, when human beings are positively supported to develop their own unique internal potential, these persons will naturally tend toward empathy, intrinsic expression, and social contribution (Endicott et al., 2003; Kasser & Ryan, 1996; King & Baxter Magolda, 2005; Sheldon & Kasser, 1995; Westen, 1990). These traits are the cornerstone of self-actualization (Maslow, 1968). However, extrinsically oriented persons tend not to exhibit these traits and as a result do not self-actualize well, much less self-transcend. The reason for such a developmental stunting are readily apparent. Whereas intrinsic self-esteem requires an exploration of self-knowledge and self-cultivation across many aspects of valuation and motivation, extrinsic self-esteem does not necessitate such introspective reflection. Self-esteem is satisfied without any deep awareness of these intrinsic elements. It is virtually impossible to actualize the self when one does not know the self, and the more spheres of self-knowledge this encompasses, the harder it becomes to self-actualize and self-transcend. In this way, extrinsic valuations can act as an obscuring force which blind the individual to the higher growth needs. That is not to say that one is exclusively either extrinsic or intrinsic in self-esteem. Indeed, a person's self-esteem derives from many sources, some of which may be intrinsic while others extrinsic in nature. However, the amount and intensity of these sources are likely not balanced, forming an individual who has a greater tendency toward one than the other. Theoretically, if a numeric score could be given to every source of a person's self-esteem based on intrinsic or extrinsic strength, then an average could be taken across these values indicating that one is primarily intrinsic or extrinsic in their satisfaction of self-esteem. Therefore, the more such an average leans toward the extrinsic, the more obscured one may be from intrinsic self-knowledge. Nevertheless, neither Maslow (1954) nor Deci and Ryan (1985) ever suggested that extrinsic valuation provided lesser self-esteem satisfaction than intrinsic. Indeed, Maslow saw them both as equally valid ways of fulfilling the need, and this is entirely accurate. Self-esteem needs are met, however, they likely obscure and stunt one's ability to pursue the growth needs. Extrinsically driven

individuals tend to use much of their motivational energy to vigilantly protect their unstably commodified view of self-worth, which leaves little time to gain an understanding of the value of higher growth needs.

By combining this idea of extrinsic valuation and Maslow's Hierarchy, a new dual path pyramid results, and is shown in Figure 2.1. As one can see, these two paths are not equal. Self-esteem valuations, which are mostly based on wealth, power, and prestige, are inherently limiting, but perhaps domain specific, toward human flourishing and reaching one's highest potential. Sadly, this route is taken by far too many, and is even encouraged by our modern Western culture in the form of materialism and consumerism (Kasser, 2003). In contrast to this, intrinsically based self-esteem that is built upon self-understanding, knowledge, and acceptance propels one to the *farthest reaches of humanity* (Maslow, 1972). As discussed in the introduction as a motivation for this research, if one is to believe that the great experiment of civilization has a purpose, and that purpose is to advance the potential of humanity, then society must find a way to break the hold of these extrinsic drivers, and shift the greater social consciousness toward more intrinsic ways of being. This would allow individuals to cultivate their internal potentials across more domains of their lives, opening up greater opportunities for growth. Such a grandiose transformation cannot happen haphazardly from one family or community education to the next, but rather ought to be accomplished through the educative will of civilization. As a result, the following section establishes a clear psychological process which can be adapted for use in schools and classrooms. The very idea of teaching for transcendence is a rather radical one, much less integrating it into the educational system. However, the below investigation will explore that exact possibility.

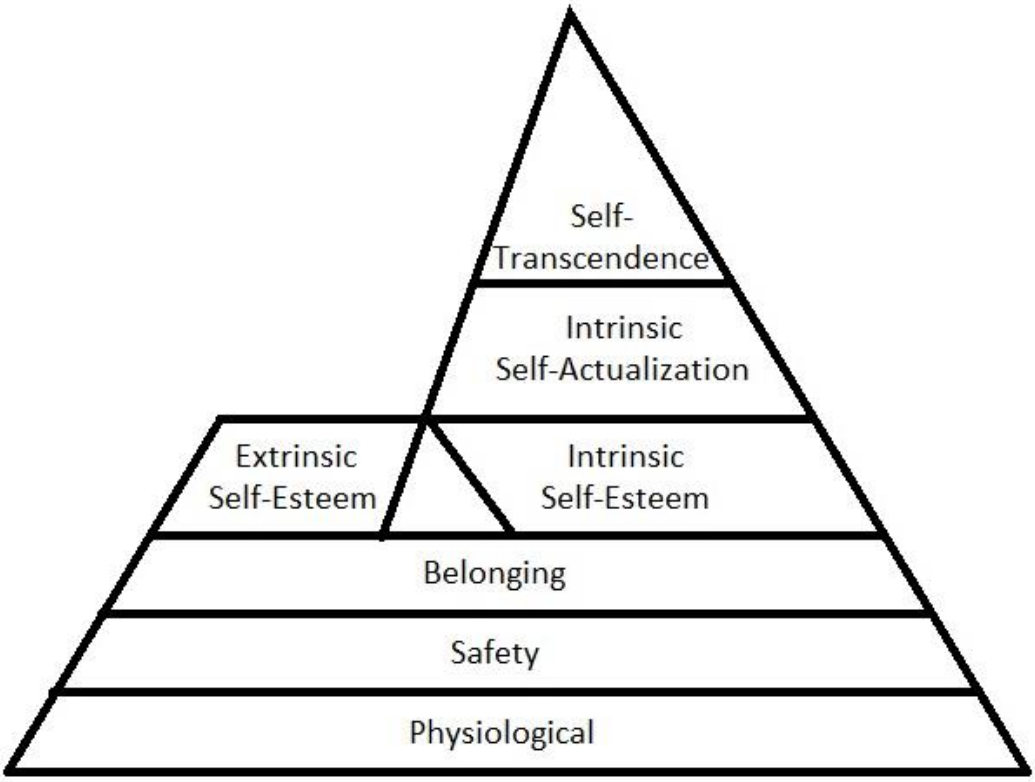

Figure 2.1. Maslow's Modified Hierarchy

Factors which Facilitate the Intrinsic Path

In order to understand how to promote a shift from extrinsic to intrinsic self-esteem and then onward toward self-transcendence, it is necessary to look beyond the bounds of the classroom since the idea of teaching for transcendence is rather novel. The question must be asked as to where such transformations occur naturally, without intentional intervention. Thankfully, not only do such life altering experiences take place, but they are fairly common and well documented in the scientific literature. Specifically, this is the process called Post-Traumatic Growth (PTG), and has previously been associated with the types of personal development seen in intrinsic valuation, self-actualization, and self-transcendence (Hall, 2010; Linley, 2003; Martin, Campbell, & Henry, 2004; Martin & Kleiber, 2005; Tedeschi & Calhoun, 2004). By definition, it is a process in which severe trauma leads to greater psychological growth. This process typically results in significant changes in personality, values, well-being, and self-concept (Tedeschi & Calhoun, 1995; Tedeschi, Park, & Calhoun, 1998). By studying how these unique people develop and grow, it can illuminate pathways which can be abstracted for intentional education.

In the modern research into PTG, Tedeschi and Calhoun (2004) explained that, "[In] people who report these changes, there do appear to be veridical transformative life changes that go beyond illusion. . . . they are experienced as an outcome or an ongoing process, rather than a coping mechanism" (p. 4). Therefore, PTG is much more than simply an element in the process of recovery. It is a substantial alteration of a person's personality, values, and perceptions. These effects are so strong that they goes well beyond self-perception, and close family and friends of PTG flourishers also attest to observing the same changes. (Groth-Marnat & Summers, 1998).

Based on a review of those who have experienced the PTG phenomenon, Martin and Kleiber (2005) compiled a list of the most commonly seen shifts in personality. Some of these include;

1. Feel more able to refuse doing things they do not want to do
2. Report less concern with social rejection and the opinions of others while also reporting more concern for the welfare of others
3. Are less easily intimidated and display a greater willingness to take risks
4. Report an increase in spirituality but not necessarily an increase (and maybe even a decrease) in traditional religious values
5. Display less interest in material things, fame, and money
6. Tend to be more serene, more self-assertive, and more confident
7. Display a greater appreciation for nature and the ordinary things in life (e.g., a sunset, hugging a child)
8. Display an enhanced sense of living in the present
9. Display a greater appreciation of life and a reduced fear of death. (p. 223)

This is, by far, not a complete list, but it does illustrate both a change in one's self-concept that is not as dependent on external approval, and a greater empathetic connection with the world. Of course, anecdotal similarity is not enough to confidently say that the PTG process is characterized by intrinsic and transcendent growth, but these growth parallels are the foundation for this study, and past research by psychologists have shown support for this assertion (Cozzolino, et al., 2004; Cozzolino, 2006; Martin & Kleiber, 2005; Vail et al., 2012). Abstracting useful methods for initiating such growth requires an understanding of how adversity and trauma act as catalysts in the PTG process. Ultimately, the goal is to find a way to instill the outcomes of PTG, but eliminate the need for trauma.

The term adversity is very broad and PTG may be induced by a variety of life events. Although the most significant changes are typically associated with confrontations with death and illness, such as cancer, heart-attack, HIV, a child's illness, or loss of a family member, they have also been noted from sexual assault, divorce, and job loss (Cozzolino et al., 2004; Tedeschi & Calhoun, 2004). It should be noted, however, that not all who experience tragedy obtain the benefits of psychological growth. By definition, PTG requires a positive trajectory, therefore, people whose experiences result in psychological dysfunction have not undergone PTG. Furthermore, in order to gain the benefits from trauma, it appears to require an initially counterintuitive proposition. Those who ardently hold onto their self-concept do not experience as much growth as the people who give up on the self (Noyes, 1980). In a sense, in order to grow beyond what a person has always known, they must let go of their former self. This forces the person into a position where they must reconstruct an entirely new Self and an autobiographical narrative. Typically this narrative takes the form of a before-Self and an after-Self. That is, there was a particular moment or event where the PTG flourisher was awakened and saw life clearly for the first time, shedding their old self. Even though the PTG process occurs over a long period of time, there is still an instant which they see as, in a literal sense, revelatory (McAdams, 1993; McAdams, Reynolds, Lewis, Patten, & Bowman, 2001; Tedeschi et al., 1998).

Present-Time versus Future-Time Orientation

One of the effects of PTG that is directly listed by Martin and Kleiber (2005) is ". . . an enhanced sense of living in the present" (p. 223). There may be some who would cringe at the idea that living in the present is a normatively higher state of being than a future focus. Indeed prominent researchers have argued that people's perception of time greatly affects their ability to live successfully, and contend that present time orientation promotes foolish and risky behavior (Zimbardo, Keough, & Boyd, 1997; Zimbardo & Boyd, 1999). Their position is not unfounded but there is a distinction that must be made. Martin et al. (2004) describe this distinction in the context of PTG by saying:

> Survivors of a close brush with death do not typically become shortsighted hedonists who have difficulty attaining long-term goals. To the contrary, they typically become more engaged in life, and they successfully pursue long-term personal goals. They do so, however, while staying mindful of their moment-to-moment experience. . . . In short, survivors of a close brush with death do not live for the present. They live in the present. (p. 438)

The difference between "in" and "for" is of critical importance. It is about being presently mindful and not becoming personally attached to future outcomes. As the quote above expresses, these people do set goals and achieve them. However, they do not place their self-worth in the need for specific future outcomes. Instead, the value in life centers on maximizing meaningful experiences in the present, and not letting those moments slip past them (Carstensen & Mikels, 2005). In contrast to the hedonistic sentiment of YOLO (You Only Live Once), living in the present does not involve perpetual consequence free self-indulgence.

There is already a well-constructed and validated theoretical model that explains the cause and transition between such a presently-mindful time orientation and a future-attachment time orientation. This is known as Socioemotional Selectivity Theory (SST). Championed by Laura Carstensen, this approach to gerontological research posits that the type of goals one strives for in life are directly correlated to how one perceives time (Carstensen, Isaacowitz, & Charles, 1999). When a person's Time Horizon Orientation (THO) is open (much life left to live), their goals are focused on knowledge and resource acquisition for an uncertain, yet limitless future. In contrast, if the THO is closing (limited life to live), goals shift toward satisfying emotionally meaningful needs in the present (Carstensen et al., 1999; Carstensen & Mikels, 2005; Hall, 2010). SST is based on three primary assumptions explained as:

> First, the theory adopts as axiomatic the belief that social interaction is core to survival, with predispositions toward social interest and social attachment having evolved over the millennia. Second, it considers humans to be inherently agentic and to engage in behaviors guided by the anticipated realization of goals (Bandura, 1982, 1991, 1997). Third, it presumes that because people simultaneously hold multiple—sometimes opposing—goals, the selection of goals is a precursor to action. (Carstensen et al., 1999, p. 166)

Essentially, this is saying that people will attempt to act in a manner that maximizes goal achievement, which is social in nature and driven by a particular set of selection priorities.

When a person is young, they seek novel relationships and unique experiences because these interactions will provide knowledge about others, the world, and possible connections to even more enhancing experiences. In other words, the young seek social resources to cultivate their future potentials. However, when that future is perceived as limited, acquiring knowledge and resources does not have the same importance. Instead, maximizing the emotionally meaningful and positive experiences in the present becomes valuable (Carstensen & Carstensen, 2004). For instance, if a person

has the choice to attend a work-related function where they may meet new knowledgeable people in their career field, or go out with a small group of close family and friends, THO will play a vital role in this decision. Those with an open THO will likely attend the work function because of the potential for novel experiences and resource gathering. Conversely, a closing THO would necessitate the valuing of friends and family because they represent a more deeply meaningful engagement, with less likelihood of a negative experience.

Furthermore, it has been shown that time horizon is not age dependent, and can even be domain specific. Carstensen and Fredrickson (1998) demonstrated that young (mean age of 37) HIV symptomatic participants had the same affective reasoning when choosing social partners as did the elderly participants, and in opposition to the young non-HIV positive participants who had more novel knowledge-based desires. Additionally, direct experimental manipulation of THO has validated its correlation with goal choices. When asked to choose among three potential social partners, both young and old participants chose the most emotionally salient partner (family) under the imagined condition that there was an imminent geographic relocation. Without this condition, the young participants did not make the familial choice (Fung, Carstensen, & Lutz, 1999). In this same article the researchers conducted the opposite study through the time expansion of the elderly. Here, young and old participants were asked to imagine that a new medical breakthrough guaranteed them an additional 20 years of life. This time, regardless of age, the participants chose the more knowledge-based social partners. The control groups however showed the expected differences in age with older people preferring family.

This theoretical understanding is greatly elucidating to the changes seen in PTG. Living with a present-time orientation may be a permanent consequence of the PTG process. Rumination over traumatic events may persist for years after the catalyzing event (Tedeschi & Calhoun, 2004). This repeated and continuous reflection upon mortality, and its inevitability, forces one into a state in which he or she is perpetually aware of this closing THO. This in turn creates a greater appreciation of, gratitude for, and engagement with life (Frias, Watkins, Webber, & Jeffrey, 2011; Martin & Kleiber, 2005). As one PTG flourisher stated:

> Like most people, I thought, `This is something I'll only have to consider when I'm 84. But getting a terminal diagnosis was, `You've got a limited amount of time. Now, really, what do you want to do? How do you want to be?' It hit me right here, in my heart. (Branfman, 1996)

Research in the last fifteen years has demonstrated that the pathways of time horizon and intrinsic valuation are not independent of one another. One of these studies investigated the relationships among death-related thoughts, greed, spirituality, and value orientation (Cozzolino et al., 2004). As has been observed in PTG flourishers, materialistic desires decrease while spirituality increases (but not religious affiliation) (Martin & Kleiber, 2005; Tedeschi & Calhoun, 2004). Based on this, Cozzolino et al. (2004) designed a set of experiments to observe spirituality and greed-related behavior, after inducing a closing THO through a process they called death reflection. Before the experiment began, all participants were given inventories to measure their Intrinsic Value Orientation (IVO). As hypothesized, extrinsically valued persons who underwent death reflection showed an increase in spirituality and decrease in materialistic greed, as compared to a control group. Succinctly, death reflection caused highly extrinsic people to behave in a manner more consistent with intrinsically oriented individuals. This evidence suggests that inducing a closing THO may cause a shift toward an intrinsic value orientation.

In order to explore, more directly, the impact of time horizon on value orientation, Cozzolino et al. (2009) conducted another series of studies aimed at deducing this relationship. In these experiments, death reflection was removed and, instead, participants were asked to imagine themselves in a scenario that took place in one of two future time periods - either tomorrow or at age 75 - open or closing THO, respectively. After their reflections on the scenario were completed, greed behavior was assessed. Again, the people who were extrinsically oriented showed decreased greed compared to the control group, whereas those who were already intrinsically oriented showed no significant change. Finally, Cozzolino et al. (2009) measured IVO after having completed the THO manipulation, as all previous tests had measured this quantity prior to any manipulations. Participants were asked to respond to self-reflective questions under the conditions that they had 50 years to live, or 6 months to live. After this was completed, an assessment of value orientation was done. In the 6-month group, all participants measured lower on IVO, whereas the 50-year group had the expected split distribution.

In its application to transcendence, living in the present appears to be closely related to the concept of mindfulness and awareness. Mindfulness has a more spiritual interpretation in Eastern Buddhism, and a more secular one in a Western context (Siegel, 2007). However, both relate back to the idea of being aware and engaged in the moment. In the Buddhist faith, the concept of non-attachment plays a central role in the path to Enlightenment. This tenet involves never allowing the mind to become attached to anything that is not happening in the moment (Haidt, 2006; Prothero,

2011). Bishop (2002) stated that, "Mindfulness has been broadly conceptualized as a state in which one is highly aware and focused on the reality of the present moment, accepting and acknowledging it, without getting caught up in thoughts that are about the situation or in emotional reactions to the situation" (p. 71). It is quite evident that this description of mindfulness bears a striking resemblance to the discussion of THO described above. This research is not based in mindfulness as a fundamental component of the theory. However, given that THO is so closely related to one of the major aspects of mindfulness, it is beneficial to investigate mindfulness as a possible avenue for measurement. Therefore, the mindfulness concept of being present minded is commensurate with the PTG effect of pursuing future goals by placing personal value in the meaningfulness of the moment and not in the achievement of specific future outcomes. It is the shift toward more present living which ultimately results in the PTG flourisher making the gains described by Martin & Keiber (2005).

An Educational Model and Approach for Transcendence

To summarize the previous discussion about PTG flourishers, when a severe tragedy, typically death related, forces an individual to ruminate on the impermanence and uncertainty of life, it causes two major effects. It directly initiates a reevaluation of one's own valuation of self, worldview, and motivations in life, particularly extrinsic valuations of self-worth. Secondly, the inability to deny the uncertainty of life shifts one towards a closing THO. This second effect serves to further challenge worldview and self-esteem, as many extrinsically derived goals necessitate an attachment to future success. Hadit (2006) describes this future success attachment as a treadmill, and states that,

> When tragedy strikes, however, it knocks you off the treadmill and forces a decision: Hop back on and return to business as usual, or try something else? There is a window of time—just a few weeks or months after the tragedy—during which you are more open to something else. During this time, achievement goals often lose their allure, sometimes coming to seem pointless. If you shift toward other goals—family, religion, or helping others—you shift to inconspicuous consumption, and the pleasures derived along the way are not fully subject to adaptation (treadmill) effects. The pursuit of these goals therefore leads to more happiness but less wealth (on average). Many people change their goals in the wake of adversity; they resolve to work less, to love and play more. (p. 143-144)

The "trying something else" that Haidt refers to is the building up of a life which allows one to better understand and express the intrinsic self. Making this transition is certainly difficult, however, it allows

one to more naturally progress up Maslow's Hierarchy and grow self-transcendence. The result is a fundamental shift in one's connectedness to the world, namely day to day experiencing of TOW.

Displaying this developmental process in the form of a flow diagram, produces Figure 2.2. Within this diagram, the traumatic event is replaced with a more generalized initiating experience. One of the primary goals of this research is to find a set of educational experiences which can, to some degree, take the place of a traumatic experience in the PTG process. Additionally, it should be noted that once the TOW variable has either been enhanced or diminished through some type of life experience, it is hypothesized to cyclically affects how future experiences will be perceived by the individual's broader socialized worldview. That is, as a component of one's composite worldview, TOW likely acts as a major element of perception. However, it is understood that an overarching worldview is comprised of more than just the single factor of transcendence, and it is unclear to what the degree this one element influences overall perception (Koltko-Rivera, 2004). Nevertheless, TOW may have an impact on ontological perceptions to which this cyclical effect, if the shift is great enough, may result in a self-enhancing process.

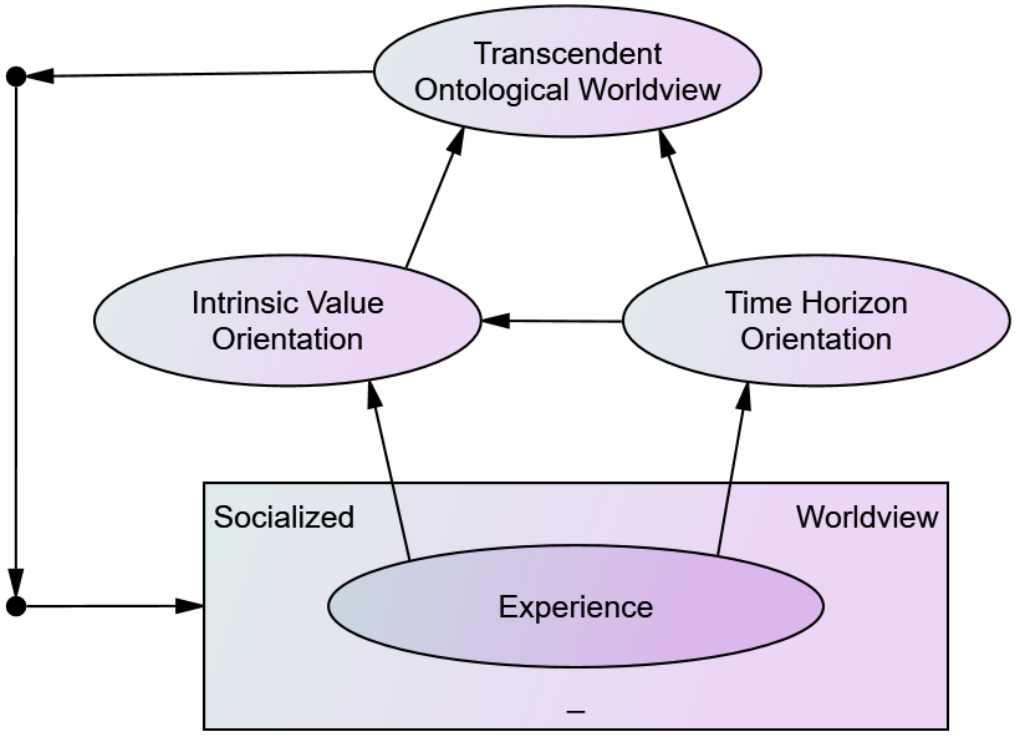

Figure 2.2. Transcendence Educational Process Model

Cozzolino et al. (2004) already demonstrated that in some ways, the PTG process can be replicated in the form of the previously mentioned "death reflection." However, this is a single instance of deliberately inducing the kinds of developmental changes needed to valid this theory. Additionally, for the education of transcendence to be worthwhile, the change would have to be somewhat lasting, and not transient. Interestingly, a branch of education was birthed in the early 1990's which attempted to intentionally cause these types of worldview and self-esteem shifts, though there were no overt indications that it was drawing on any research from PTG, and did not discuss the role of death or time perception. This approach to education has been termed Transformative Learning Theory (TLT). According to this theory, learning only occurs if worldview itself is transformed in a very particular manner (Mezirow, 1991). As described by its founder, the goal of transformative learning is:

> . . . [to] transform our taken-for-granted frames of reference (meaning perspectives, habits of mind, mind-sets) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so they may generate beliefs and opinions that will prove more true or justified to guide action. (pp. 7-8)

When Mezirow speaks of transforming taken-for-granted frames of reference, he is using terminology which has a meaning quite similar to socialized worldview. Indeed his definition of frames of reference greatly reflect what has already been described above. He states that they are "broad, generalized, orienting predispositions that act as a filter for interpreting meaning of experience" (Mezirow, 2000, p. 17). Though there have been many adaptations and advances in the area of TLT since its inception (Talyor, 2008), some aspects have remained constant. Transformative learning must begin with a "disorienting dilemma" (Mezirow, 1991, p. 168). That is, the individual must experience an event which cannot be easily interpreted and ascribed meaning within their pre-existing frame of reference or worldview. This inherently uncomfortable situation then opens one up to evaluating their taken-for-granted (socialized) assumptions about the world in such a way as to make them more stable and pro-social. In a similar, but significantly more intense way, PTG begins with the disorienting dilemma of personal trauma.

TLT as it was originally conceived, involves a 10-step process toward transformation (Mezirow, 1991, p. 168). Those steps are:

1. A disorienting dilemma
2. A self-examination with feelings of guilt or shame

3. A critical assessment of epistemic, sociocultural, or psychic assumptions
4. Recognition that one's discontent and the process of transformation are shared and that others have negotiated a similar change
5. Exploration of options for new roles, relationships, and actions
6. Planning of a course of action
7. Acquisition of knowledge and skills for implementing one's plans
8. Provisional trying of new roles
9. Building of competence and self-confidence in new roles and relationships
10. A reintegration into one's life on the basis of conditions dictated by one's perspective

Despite this lengthy and detailed list, Mezirow noted that not every transformation requires that these steps occur, or in a specific order (Kitchenham, 2008). As such, these can be largely generalized into three overarching stages which may be better for conceptualizing the process. Those are 1) A questioning of worldview assumptions, 2) an exploration of alternative habits of mind, points of view, and meaning schemes, and 3) an adoption of new meaning perspectives (worldview). This formulation bears a strong resemblance to that of identity development and moratoriums (Marcia, 1966; Kroger & Green, 1996). Indeed, TLT often references the need to explore new meaning perspectives in relation to self-esteem, identity, and roles (Mezirow, 1991; 2000). The goal of this process is to open up the individual to new ways of understanding themselves and the world. As such, the ultimate goal of the treatment course is to "transform" meaning perspectives into ones which allow the individuals to develop their worldview (meaning perspectives) such that it is easier to progress up Maslow's hierarchy toward self-transcendence with less hindrance. However, the path to establishing new frames of reference needs to be carefully guided. Indeed, some authors have cautioned about the potential abuse of using this vulnerable state to indoctrinate students into biased ways of thinking (Moore, 2005). Therefore, it is critically important that students be guided in a way which allows them to explore their own intrinsic self, and develop conclusions based on those reflective insights. Of particular gravity in TLT is the role of reflective writing and communication. Previous research has shown that the possible benefits of transformative learning courses are largely influenced by a student's willingness and commitment to engage in journal writing and critical discourse (Chirema, 2007; Merriam, 2004). Through this guided process of challenging worldview, and developing new intrinsic perspectives, students can shift their self-esteem and hopefully begin to climb Maslow's pyramid toward its highest

point. That is, sustained education that successfully achieves these two instructional goals may have great potential to help students reach and maintain a higher transcendent worldview.

In order to see how that is accomplished, a distinction must be made between meaning perspectives and meaning schemes according to TLT. Meaning perspectives are "the structure of cultural and psychological assumptions within which our past experience assimilates and transforms new experience" (Mezirow, 1985, p. 21), whereas meaning schemes are "the constellation of concept, belief, judgment, and feeling which shapes *a* particular interpretation" (Mezirow, 1994, p. 223). More succinctly, meaning schemes are very specific attitudes and beliefs that are the interpretive result of meaning perspectives. Meaning perspectives provide the broader interpretive framework from which meaning schemes are determined (i.e. worldview perspectives). A fully detailed hierarchy of this relationships is shown in Figure 2.3. Explaining how each element relates is not necessary for this summary, however, please note that in the vernacular of TLT, meaning perspectives are comprised of a set of "habits of mind." These are what this experiment's treatment course hope to impact, and as a result transform all lower levels meaning schemes into ones which promote more psychological stability, growth, and needs satisfaction. Those worldview habits of mind are built upon a humanistic view of the reality as informed by psychological research. This may supplant other perspectives and habits such as authoritarian, exploitive, or materialistic views of experience interpretation.

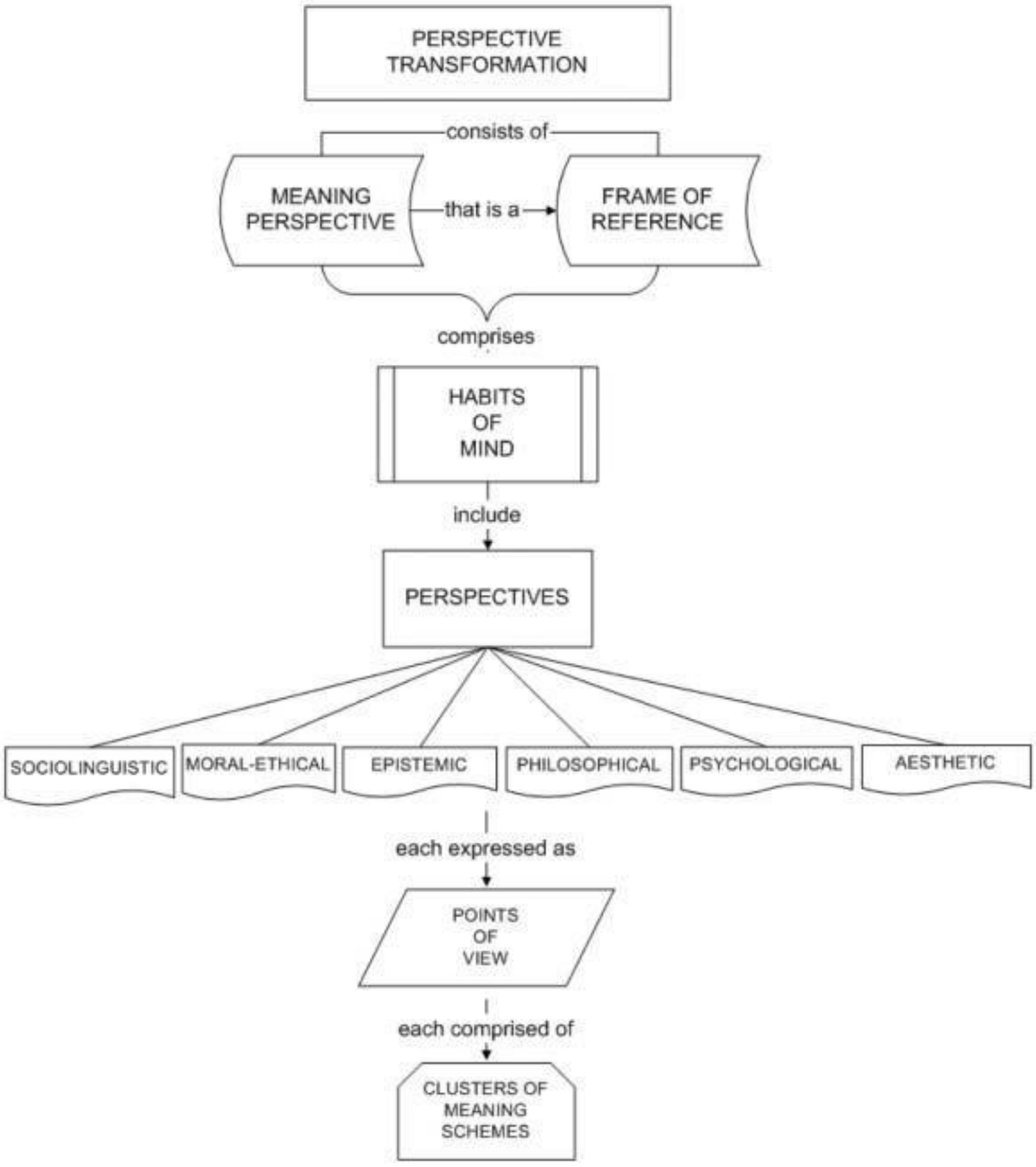

Figure 2.3: Mezirow's (2000) Diagrammatic TLT Representation

The habits of mind which TLT wishes to reforge, are referred to as taken-for-granted assumptions, or in other contexts assumptive worldviews (Tedeschi & Calhoun, 2004). The focus is on bringing to light those unconscious assumptions about the world which were socialized early in life, so that they can be critically reflected upon and discussed openly. Critical reflection differs from the general case of reflective thinking in that, in addition to contemplating about the source and consequences of one's actions, the individual also considers the sociohistorical and sociocultural

circumstances which led to those actions (Kitchenham, 2008). In this way, critical reflection is a much more abstract and contextual exploration of the self as situated within a particular time, place, and culture. Therefore, the treatment course integrates a number of historical perspectives, and asks students to learn about and consider their own worldview perspectives given the institutional history of the topics covered.

There are three diverse types of critical reflection described by TLT: content reflection, process reflection, and premise reflection (Mezirow, 1991). The first two of these only impacts and transforms the lower level meaning schemes, but not habits of mind or meaning perspectives. Whereas there's nothing harmful in directly addressing meaning schemes, the goal of this research is to affect transformation at a deeper level. For that reason, the treatment course is primarily centered upon the third type of critical reflection, premise reflection. As an example of how premise reflection differs from content or process reflection consider an astronomy student who is thinking about what to do with his education after he graduates. This student may ask a content reflection question such as, "What can I do with my degree in astronomy after I graduate". Taking the next step toward more complex thinking, they may contemplate a little more critically in asking, "Which projects and courses in the degree did I enjoy most, and where could I do more of that for a career"? Both of these questions are important to consider, but there is an underlying assumption to both of them that the student has not realized yet, and that is the personal value she places on a career in astronomy. This is where premise reflection can be illuminating. To fully explore her thinking the student would want to ask, "Why is a career in astronomy so important to me, and what life fulfilment am I hoping to get from pursuing this area"? This type of deeper critical reflection on personal motivations, beliefs, and values is what the treatment course was designed to impact. Premise critical reflection is then "a critique of a premise upon which the learner has defined a problem" (Mezirow, 1998, p. 186). If students can learn to 1) ask these premise reflection questions, 2) frame them in a useful way, and 3) have an understanding of how to explore the possible answers to them, then real transformation can occur. Much of the research for this study and TLT centers upon how to drive an individual to engage with these questions. There is general consensus among the literature that this requires the individual be presented with "disorienting dilemmas" for which content and process reflection (affecting lower level meaning schemes) cannot resolve alone. The dilemmas must be sufficiently perplexing enough to force the individual to consider a broader set of contextual factors and motivations.

From the above review, it has already been discussed that one of the most impactful dilemmas that any person can face is being forced into a present-time orientation through death confrontations. The transformative learning process may not be enough by itself, and the benefits of developing a closing THO should not be ignored. Turning attention back to the research done in mimicking the PTG process through death reflection, it is helpful to understand the construction of this process. Death reflection involves three elements: confronting death, a life review, and the opportunity to take another's perspective (Cozzolino et al., 2004, p. 281). Using this framework, Cozzolino and colleagues designed a set of open-ended qualitative questions which forced participants to deeply think about the three death reflection elements. Across the seven studies described previously, they demonstrated that engaging in death reflection significantly, but temporarily, increases spirituality, intrinsic self-esteem, and gratitude toward life, while also decreasing greed tendencies (Cozzolino et al., 2004; Cozzolino et al., 2009; Frias et al., 2011). By having students routinely engage with death related topics and reflect on them through conversations and writings that are consistent with the three elements of death reflection, it may be possible to enhance the transformative process through the development of THO.

Finally, TLT does address, theoretically, the types of learning which can lead to engagement with critical reflection. This is largely dependent on the current state of each learner and what worldview assumptions (frames of reference/habits of mind) they hold. Simply because someone holds assumptions that have not been critically reflected upon yet, does not mean they will be in conflict with the desired transformations. That is, since the course goal is to provide students with a humanistic framework, there may be those whose upbringing was already very humanistically driven. The type of learning that this individual will engage in will be different than someone whose upbringing has given them a more extrinsically materialistic worldview. These differences manifest themselves in terms of which level of meaning making the student ought to be engaged with. Four types of learning are described by TLT: 1) elaborating existing frames of reference, 2) learning new frames of reference, 3) transforming habits of mind, and 4) transforming points of view (Kitchenham, 2008; Mezirow, 2000). There is no way to know exactly which type of learning is needed for each student on an individualized basis. This is more a point of remembering that all types of learning are likely occurring within the classroom, and therefore the instructor should be providing learning opportunities at all levels. Further, even though the course is focused on transformation of meaning perspectives and habits of mind, once transformation begins, it has a ripple effect down the line to points of view and meaning schemes.

These transforming points of view and meaning schemes are explored by the student through experimentation and role testing, much akin to identity development (Blos, 1962; Marcia, 1966). TLT allows for this through rational discourse within the classroom where students discuss and debate new viewpoints with other students who are undergoing the same process. For this reason, the course structure involves a great deal of small group discussion which follows almost every activity and video. TLT has been criticized for being overly rational and cognitive at the expense of addressing emotional and spiritual transformation that may be occurring at the same time (Taylor, 2008). Thus far, no article has been found which clearly outlines a solution for this problem, and most only advocate for further research. In an attempt to compensate for this lack, this course has been built to engage with students emotionally as well as cognitively.

Most information in the treatment course is conveyed through videos of TED talks, RSA videos, poignant YouTube videos, TV episodes, or movies. There are no textbooks or heavy article reading for the course, nor are there lengthy lectures. Videos are contextualized in an overarching humanistic framework through short 10-minute lectures, but then content education is turned over to the videos. The purpose for this is that these video, while providing specific content and messages in intellectual ways, are often highly emotional and personal. No textbook or teacher's lecture can provide the emotionality which is given through the struggles and stories of others. There is one exception to this use of external storytelling, when the instructor gives his story of post-traumatic growth and identity reformation as a culminating example to the class.

Based on the description of TLT above, the following key design elements are heavily integrated into the course:

1. Exploring the institutional structure of the modern American society.
   -Sociohistorical and sociocultural influences on the institutions.
   -Premise critical reflection on how these institutions have influenced students' meaning perspectives and identity development.
2. Forcing students to engage deeply with premise reflection by presenting strong disorienting dilemmas, primarily through death confrontation.
3. Having students direct premise reflections toward inward worldview perspectives to address identity development questions: values, passions, self-esteem, intrinsic motivations, strength, weakness, etc.

4. Providing knowledge about humanistic meaning perspectives through emotionally meaningful and personal examples (i.e. videos, movies, & speakers).
5. Providing students the opportunity to openly discuss and debate assumptions, values, and perspectives espoused throughout the course through small group discourse.
6. Having students engage in critical reflection through journal writing.
7. Providing even further opportunities for students to "test out" new points of view and meaning schemes through course activities and projects.

Alternative Educational Framework Considerations

The above description of TLT and its application to transcendence development offers a solid approach and empirical foundation from which to educate transcendence. However, there may still be areas of education which may offer additional understanding pedagogical approach to this research. As it would seem that character education is closely related to the goals and paradigms of this research, it should be a valuable place to gain further insights. Unfortunately, despite this cursory similarity, character education was found to suffer from a number of issues and limitations that made its value less salient. Below is a discussion of the limitations of character education, where transcendence development may be situated within it, and what utility this situated placement provides.

Modern literature tends to speak of character education in two different contexts. One of these is Social-Emotional Learning (SEL), which is a more modern approach to the education of character traits. There is no consensus about what defines SEL, neither explicitly nor by criteria (Brackett & Geher, 2006; CASEL, 2005; Maree & Elias, 2007). However, the predominate professional organization related to SEL has adopted a specific definition, which has been accepted by many in the teaching world. The Collaborative for Academic, Social, and Emotional Learning (CASEL) defines SEL as,

> Refer[ing] to knowledge, habits, skills, and ideals that are at the heart of a child's academic, personal, social, and civic development. They are necessary for success in both school and life. This type of learning enables individuals to recognize and manage emotions, develop caring and concern for others, make responsible decisions, establish and maintain positive relationships, and handle challenging situations effectively (Matula, 2004, p. 5).

Certainly the claimed outcomes of SEL seem to align well with those of the proposed research. Indeed, CASEL outlines five core competencies, the first of which is self-awareness (CASEL, 2005). Their description of this competency directly relates to both intrinsic self-understanding and being present-

time oriented. The connection between the outcomes of a self-transcendence model and SEL are not in dispute. However, it is important to draw attention to another aspect of the CASEL SEL definition. It is centered around habits, skill, and competencies. SEL is ultimately concerned with outcomes, and the teaching practices which can initiate those outcomes. There tends to be little emphasis placed on the internal psychological development of the individual student. That is not to say that SEL fails to incorporate the latest psychological knowledge, but rather that it uses those insights as a means to establish pedagogical approaches to learning and teaching. As a result, the underlying psychologically developmental constructs tend to be ignored in favor of more pragmatic evaluations of the effectiveness of SEL interventions. Such an approach to character education may be complementary to the development model in this research, but it is not commensurate to it.

Beyond the limitations imposed by the outcome oriented focus of SEL, it also tends to be domain specific. SEL interventions do not typically seek to holistically affect individuals and instead build educational inventions designed to impact only one or two traits. These might include aggressive behavior, self-awareness, empathy, or conflict resolution. Domain specificity results because SEL is typically enacted in order to combat specific negative or risky behaviors (Elias, Parker, Kash, Weissberg, & O'Brien, 2008). This is both the strength and weakness of SEL. It is a strength because it allows educators to engage in teaching practices with well-defined skills to teach, as well as clear metrics for assessment. The weakness of this approach is that it is difficult to generalize to broader conclusions about SEL education. This domain specific limitation is also incongruent with the transcendence education research, which is attempting to impact individuals on a scale of worldview development, and is less concerned with development of particular skills and competencies. This, combined with the outcome oriented focus of SEL, means that the transcendence education cannot be well situated within the confines of SEL.

The second context with which character education is defined either goes by the same name or by moral education. Though some authors attempt to draw distinctions between moral and character education (Althof & Berkowitz, 2006), the differences tend to be minute and semantic within the broader context of this review. It is beyond of the scope of this brief review to discuss the overly nuanced arguments concerning such a distinction. As such, this area will be referred to simply as Moral Character Education (MCE) to encompass both aspects, if they are separate at all.

Unlike SEL which focuses overtly on the behavioral outcomes of specific prosocial traits, MCE's attention is centered more upon developing an individual's systematic moral thinking which ideally results in a person who behaves in prosocial ways. Moral education focuses more on the thinking while SEL focuses on the doing. Of course, both are needed and there is considerable overlap between them (Matula, 2004), however, the emphasis on an underlying system of moral thinking makes MCE a better place to situate this research.

Often, MCE is said to address the question "what is the Good?", and to educate students in the pursuit of that Good (Elias et al., 2008). This obviously raises an immediate concern about whose moral authority is used to determine what is Good. The subjectivity of this question seems insurmountable, however, given the developments since then, this question can be addressed in a manner which is acceptable from a scientific perspective. That is, "Good" can be defined as those worldviews, values, and methods of need satisfaction which drive oneself and others toward greater satisfaction of the growth needs, particularly self-transcendence. Further, the converse of what is Not Good is defined as those worldviews, value, and methods of need satisfaction which hinder the progress of oneself and others toward greater satisfaction of the growth needs. This is by definition a view of Good informed by humanistic ideals, and serves not just the basis for education in the research, but the foundation of the research itself. That is, the paradigm for this research contends that as the students are educated on an understanding of Good from this humanistic perspective and begin to enact it, the "moral" person will emerge, which demonstrates the prosocial behaviors that both MCE and SEL hope to promote. This connection between the satisfaction of the highest Maslovian needs, and prosocial attitudes and behaviors, previously described, can be situated and understood within the contextual breadth of MCE terminology and literature.

Humanistic psychology offers a directly empirical approach toward determining which paths lead toward the Good, and which are a hindrance. However, these do not take the form of specific imperatives or edicts about thoughts and behavior. Rather, they give a generalized systematic framework from which one can interpret experiences related to both self and other, as well as defining personal needs, motivations, and purpose. More succinctly, it is a worldview perspective. Identifying the education of such a systematic framework within MSE is not unheard of. Moral education based in religion tends not simply to provide a set of values, but additionally a comprehensive system and organizing principles from which to understand and interpret experiences in relation to values (Peterson & Seligman, 2004). An empirically humanistic approach to MCE offers a similar framework, but does not

fill that framework with values directly. The major linchpin of transcendence education centers upon developing intrinsic self-esteem and understanding in terms of values, identity, and morals, and as such, a humanistic framework provides a guide to exploring these introspections without imposing a particular value structure.

A form of this type of education which provides a worldview framework, yet maintains a value-neutral stance does have a corollary in MCE. Carr (2011) defined virtues as not being "hard and fast principles which may be applied in any conceivable circumstance, but general patterns or tendencies of conduct which require reasonable and cautious adjustment to particular and changing circumstances. . . ." (p. 5). By this view of virtues, they are not clear constructs such as humility, courage, or piety. Instead they represent patterns in the manner in which one conducts oneself. Such conduct is not limited to outward behaviors, but also the internal thinking of the individual. As previously mentioned, MCE is largely focused on the development of inner character which expresses itself through prosocial behaviors, and virtues are an extension of that. Further, virtues have two primary facets which are that "it makes a claim of the explanatory primacy for. . . . judgements about character, agents and what is required for flourishing; and. . . . it includes a theory about 'how it is best or right or proper to conduct oneself'" (Lapsley & Narvaez, 2006, p. 9). The transcendence development satisfies the elucidations of virtue for Carr, as well as for Lapsley and Narvaez, in that the transcendent worldview does not offer specific principles but rather attempts to establish general patterns of thought and behavior through the worldview development. It does so by addressing how people can grow toward satisfying their highest growth needs, fulfilling their potential, and "flourishing" as human beings through humanistic psychology (Maslow, 1972).

Within the area of virtues-based MCE, the idea of transcendence can be found in several instances. Most notably, Dahlsgaard, Peterson, and Seligman (2005) discussed the virtue of transcendence in the historical context of most major world religions and philosophies (Confucianism, Taoism, Buddhism, Hinduism, Athenian philosophy, Christianity, Judaism, and Islam). They defined a transcendence virtue as that which "[forges] connections to the larger universe and thereby provide meaning" (p. 205). This conceptualization is certainly within the scope of the TOW construct, and interestingly, Dahlsgaard et al. found that transcendence was a celebrated virtue in all historical contexts. However, it was only explicitly used in five of the eight traditions. The others were thematically implied but not directly defined. From this study it is clear that describing transcendence as a virtue, and therefore part of virtues-based MCE, has a long history. The claim that this research into

transcendence falls within this realm is very reasonable. Unfortunately, this is where the modern literature into the MCE of transcendence ends. For the research conducted here, there does not appear to be any literature which explicitly addresses the concept of teaching transcendence as a virtue of MCE. Of course, given the long history of the transcendence virtue in various traditions, there is no lack of religious and philosophical writing on the subject. However, the goal of this research is to build all theory and methods on empirical scientific foundations. Only then is it valuable to draw comparisons to more traditional sources.

This relates to the primary disadvantage of MCE, and why it was not given attention for the educational piece of this study. Whereas SEL has a tendency to overly focus on discrete skills and metrics, ignoring broader psychological frameworks, MCE relies heavily on philosophical and religious foundations to build its structure. There is a lack of empirically grounded frameworks from which to build educational methods and pedagogies. This causes further difficulties as the terminology used is mired in traditional connotations which make it a struggle to operationalize and connect with more modern constructs. Lapsley and Narvaez (2005) willingly acknowledged that there are notable exceptions to this, such as Kohlberg's theory of moral development (1971). However, they claimed that this general approach to MCE has left the field ". . . insulated from theoretical and methodological advances in other domains of study . . . [and] has been handicapped by an allegiance to a set of philosophical assumptions that has effectively limited theoretical growth and empirical innovation" (p. 19). Further, in a later article Lapsley and Narvaez (2006) speculated about how to address this lack of development, and its willingness to adapt to modern psychological research by stating,

> Indeed, character is a concept with little theoretical meaning in contemporary psychology, although it has been the source of ethical reflection since antiquity. An approach to character education that is deeply "psychologized" would look for insights about moral functioning in contemporary literatures of cognitive and developmental science, in the literatures of motivation, social cognition and personality. Of course, researchers in these areas rarely draw out the implications of their work for understanding the moral dimensions of personality and its formation (p. 2).

This limiting perspective of psychological advances in MCE presents a serious challenge to its utility within this research study. Further, no articles were found which attempted to explain character education in terms of motivational or needs-based psychology. As a result, whereas there are clear

commonalities and links between MCE and transcendence education, deeper theoretical connections are absent for the reason expressed by Lapsley and Navaez.

The difficulty in expanding motivational psychology into character education can also be seen in realm of intrinsic self-esteem and values (Kasser & Ryan, 1993; 1996). Over time this concept of intrinsic valuation has gained a general consensus to mean personal values which are ". . . consistent with actualizing and growth tendencies natural to humans. . . . Specific examples of intrinsic values include the desire for self-knowledge, emotional intimacy, and community involvement" (Sheldon & McGregor, p. 385). However, attempting to find this same construct, even tangentially, within the MCE literature is problematic. Character education tends to use terminology such as self-knowledge, self-cultivation, or self-understanding in traditional and domain specific ways. Intrinsic values are a likely result from the pursuit of such qualities, however, determining how they relate to the scientific construct is difficult without some empirical derivation. Indeed, the only direct instance of intrinsic values being used in character education was found in a set of educational principles put forward by Lickona (1996). This document outlines 11 principles of character education, with one of these discussing intrinsic valuation. Principle 7 states that:

> As students develop good character, they develop a stronger inner commitment to doing what their moral judgement tells them is right. Schools, especially in their approach to discipline, should strive to develop this intrinsic commitment to core values. They should minimize reliance on extrinsic rewards and punishments that distract students' attention from the real reasons to behave responsibly. . . (p. 96)

Certainly this does seem to be discussing the accepted construct of intrinsic valuation. However, despite this article being published in a legitimate scientific journal, no explanation for the derivation of these principles was given. Perhaps worse, is that these principles have been adopted by the respected Character Education Partnership organization, and cited more than 300 times. Again, MCE is handicapped by the lack of psychological development and empiricism within its constructions.

Despite the strong criticisms of MCE and SEL, character education is still a valuable field of research. However, that value will increasingly be dependent on its ability to integrate and adapt to the insights of modern psychology, which it currently tends to ignore (Lapsley & Narvaez, 2005; 2006). An attempt was made here to situate transcendence development within the context of character education, and that has largely been successful. Transcendence development does not fall under the

auspices of SEL, but rather MCE. Further, within MCE, both transcendence itself and its value-neutral framework approach place it solidly with a virtues-based perspective. Sadly, explaining the transcendence development process from a character education standpoint is not possible at this time. The field has not evolved with the advances in psychological understanding, and this has limited its utility. However, this opens up an opportunity for this research to begin to fill that gap. There is clearly a need to bridge character education with that of modern psychological insights, particularly those which incorporate motivational theories. The transcendence development model may be able to create such a bridge and break the stagnation of this intriguing area of study.

Adolescent Identity Development

Before proceeding further it is necessary to describe the population under investigation and the unique developmental stage in which these participants were already engaged. Specifically, adolescence is a time period marked by a high degree of uncertainty about self-identify, worldview, and values; the very constructs which this research attempted to impact. It would be negligent to not account for this turbulent developmental period when designing this experiment and treatment course. As such, below is an exploration of the issues which face most adolescents in the 21st century as they strive to gain independence and define an individualized sense of self.

The world has changed dramatically in the last one and a half centuries since industrialization. These changes are most notable in the Western world where society has completely transformed. One major cultural shift in the Modern West has been the dissolving of "tight" cultural norms, and a greater openness to individual expression (Arnett, 1998). Whereas the ability for each person to live by his or her own intrinsic set of values, morals, and beliefs is arguably a great benefit to any civilization (Dewey, 1916/2012), it also comes with some new psychological quandaries which must be addressed. No longer do the broader social institutions prescribe and demand what one's identity and self-concept must be. Instead, it is left to each individual to explore and define their own selves. This shift has become so prevalent and normalized that where there was once societal pressure to conform one's identity, it has been replaced by pressure to explore and "find one's self" (Arnett, Ramos, & Jensen, 2001).

Such initial explorations primarily occur during adolescence when young persons begin to establish a uniquely independent identity that is distinct from their previously collective familial identity (Allison & Sabatelli, 1988; Blos, 1962). However, due to the relatively recent shift toward cultural

openness and individual self-exploration, identity formation is taking a much longer period of time. Some researchers are now defining an extended identity formation periods in early life beyond traditional adolescence known as emergent adulthood (Arnett, 2000). Emergent adulthood is an extension of adolescence into one's early and mid-twenties, where the expectation is not to "settle down" with a career and family, but rather to continue to discover and investigate a world of possibilities and one's place within it.

In effect, Western Modern society has created an extended time period of life where the young are expected to engage in self-exploration and identity formation, yet that same new social structure has paradoxically removed any guidance which previously helped adolescents navigate this turbulent time. Adolescents are inundated with abstract and esoteric messages about the need to find themselves, know who they are, and figure out what's important in life. Sadly, there is rarely accepted messaging about why an adolescent needs to pursue this, what beneficial outcomes it can provide, or how to go about accomplishing identity achievement. This is where the experimental treatment curriculum for this research study is situated. In the grandest sense, the course hopes to provide an emotional, cognitive, and "spiritual" framework which adolescents will use in their current and future pursuit of self-identity. Such a guiding framework is embedded within the development TOW, and may offer a type of developmental stability which the more traditional conformity of identity provided in the past. However, it must be made clear that the curriculum of the course was not attempting to indoctrinate students into an equivalent set of cultural norms which also demand a particular conformity. Rather, it was hypothesized to provide students with a broadly humanistic worldview centered upon: 1) maximizing one's satisfaction of motivational needs, 2) understanding the ways personal fulfillment can be achieved, 3) the effects of need satisfaction and, conversely, non-satisfaction, and 4) how to take corrective action when identity or need satisfaction crises occur. Such a worldview is only restrictive in that it tends to discourage antisocial values and behaviors, while encouraging prosocial ones.

In terms of behavior, most antisocial conduct is already strongly discouraged or even illegal in the United States. The goal of this research study is to provide a worldview framework for identity exploration which discourages antisocial values and anti-humanistic perspectives. The psychological mechanisms for how such a curriculum can promote prosocial values and dissuade antisocial ones were discussed above. However, it is of value to explore how these mechanisms would impact the students from the perspective of adolescent identity development. Specifically, how would such an intervention

likely influence the identity development already occurring in adolescence, and what outcomes could be expected from that intervention?

There are a plethora of perspectives and ideas surrounding adolescent development, however, the most commonly referenced of these is that of Marcia's (1966) Identity Status Theory which is a formalization of Erikson's (1959; 1968) early work. According to this stage theory, an adolescent progresses through four unique statuses on their way toward identity formation. The process begins with identity diffusion, in which the young person feels a lacking in their identity, values, and beliefs yet also isn't sure how to go about resolving this. An adolescent at this stage is not attempting to explore or seek out new roles and identity elements which they can commit themselves to. One resolution to this diffusion of identity is to fully commit to a set of identity roles and values as quickly as possible without exploration or reflective analysis. When such a resolution occurs, it is called identity foreclosure, however, it does not constitute a fully formed identity that is ready for adulthood. The problem with this stage of development is that the adolescent hasn't committed to the identity because they determined through exploration, trial and error, or self-reflection that it is right for them. Instead, they accept this set of values because it is easy and familiar. That is, they are likely to adopt identity elements related to what they've learned from their family and immediate community (Waterman, 1993).

In contrast to an identity foreclosure, an identity moratorium allows adolescents a chance to form their own sense of self and personal identity. Effectively, adolescents in this status allow their diffusion to progress into a crisis, which must be resolved through exploration of different roles, values, and goals. Moratoriums have no prescribed length of time and could last for days, weeks, months, or even years (Flum, 1994). During this time, the adolescent postpones making any strong commitments that would resolve the crisis in order to experiment and explore different identities. Eventually, once the young person has had enough time to explore various roles and values, he or she will be ready to choose and commit to the sense of self which fits best. Once these commitments are made, the adolescent has moved into the identity achievement stage, which means that he or she has established a stable sense of identity and can move forward in life (Stephen, Fraser, & Marica, 1992).

Even though Marcia's (1966) theory is widely utilized, there is large disagreement about how these different stages should be interpreted in terms of progression, as his theory is fundamentally not a developmental one (Bosma & Kunnen, 2001). Waterman (1993) claimed that progression toward a

more stable and complete sense of self occurs in primarily a forward direction, and reversion is rare. That progression generally moves from diffusion, to foreclosure, to moratorium, and finally to achievement. In contrast to this, Van Hoof (1999a) contended that the path toward a stable adolescent identity can take many forms, and may go back and forth among the statuses many times. Such conclusions have also been reached by other studies, and the research conducted here was aided by that stance (Goossen, 1995; Van Hoof, 1999b). The perspective of a fluctuating identity progression was of value here because a process goal of the treatment course curriculum could be described as intentionally causing students to enter into a Moratorium status. While in this state the instructor and course curriculum could lead students through the exploration process, effectively modeling and guiding them using a humanistic worldview to understand and investigate various identity elements.

There is evidence to suggest that such an intervention could result in the type of moratorium and subsequent development which the curriculum hoped to initiate. In a qualitative study by Kroger and Green (1996), they asked midlife adults to reflect on the types of events which catalyzed status changes. Even though responses varied, there was a predominance for one type of event. That event is described as "internal change (discontent or coming to terms with the self where there was no strong external source of influence reported, e.g. altered perspective or new awareness through introspection)" (p. 481). This parallels the aim of both death reflection and transformative learning previous discussed. Using the disorienting dilemma of having to engage in death reflection may create a new awareness and necessitate a new perspective or worldview. This dilemma may initiate a disequilibrium in one's worldview and identity, which leads to a moratorium in order to resolve it. In the study of moratorium-achievement cycles, Stephen et al. (1992) stated that even when an adolescent reaches the achievement status, there may be an event which disequilibrates identity, eventually leading to a more functional and consolidated identity.

Much discussion on adolescent development has surrounded the role of external contextual factors, such as sociocultural environments in the community and schools. Cote and Levine (1987) take some exception to Erikson's large focus on intrapersonal characteristics, and contend that this ignores many contextual factors which also play a pivotal role. These authors describe the process of moratorium as being comprised of a set of social and institutional structures, rather than internal attributes. These are broadly categorized as technology-based moratorium and humanism-based moratorium. Technology-based is the more modern industrialized view of identity driven by pursuit of career success and the acquisition of wealth, status, and skills within society. It is considered to be the

more common type of moratorium in modern America. In contrast to this, humanism-based moratoriums are concentrated around expression of humanistic values such as social activism, community connection, and universalist ideals of equality. This humanism approach to moratorium has less institutional support since there are few jobs and industries which encourage this type of thinking. Therefore, identity exploration from a humanism perspective combined with the previously mentioned decline of identity conformity, creates an even more challenging time for these adolescents. The same dichotomy is seen in the conceptualizations of Stephen et al. (1992), which are described as having either an achievement orientation or an experiential orientation. They contend that when one's identity development is driven by an achievement-orientation, focus is placed on goal-seeking and is not as flexible since it is unconcerned with the actual experience of exploring alternative identities, and that these alternatives could even represent a threat to goal achievement. In contrast, an experiential orientation centers upon finding meaning, openness to experience, and curiosity. Such a developmental orientation allows for disequilibration to occur more readily, and subsequently greater identity development. Indeed, the degree to which an adolescent is open to experience seems to be highly correlated with how stable and fully developed his or her identity can become (Kroger & Green, 1996).

Upon inspection, the difference between technology- and humanism-based moratoriums, as well as achievement versus experiential orientations, bear a striking resemblance to the difference between extrinsic and intrinsic valuation (Kasser & Ryan, 1993; 1996). However, whereas one's valuations are the attitudinal outcome of a development process, the institutional moratoriums and orientations defined by Cote and Levine (1987) and Stephen et al. (1992), respectively, constitute the guiding social principles and framework which drive the developmental process itself. In other words, it can be thought off as the worldview perspectives from which one interprets one's experiences, experimentations, and explorations. Understanding institutional identity and moral development from the perspective of worldview has been previously undertaken by Jensen (1997). According to her theory, moral reasoning, evaluation, and behavior are a consequence of one's worldview perspective. Additionally, the process of enacting one's morality cyclically reinforces worldview. Jensen stated that her definition of worldview is educated by a set of existentialist questions provided by Walsh and Middleton (1984). The questions which they claim comprise worldview are 1) Who are we as human beings? 2) Where are we as a physical world in relation to a cosmic order? 3) Why are we suffering? and 4) What is the remedy for suffering? The answers to these four questions build the worldview in which an individual defines his or her identity and sense of morality. Jensen (1997) further explained that an

individual's worldview is then transcribed into moral reasoning through three "moral agents" (p. 332) of the Ethic of Autonomy, Community, and Divinity. Autonomy concerns the rights of individuals and ensuring that oneself and others have the freedom to make autonomous choices. The ethic of community entails the moral obligations and responsibility one has to groups beyond the self, such as family, nation, humanity, or Nature. Finally, the ethic of divinity centers upon the set of rules and law defined by an external spiritual source that, when followed, lead to a more pure existence. Using qualitative investigation, Jensen has repeatedly found that the predominance of these ethics correlate strongly with one's affiliation as progressive or conservative (Jensen, 1998a; 1998b; 2006). Conservative perspectives tend to emphasize the ethic of divinity, whereas progressive viewpoints rarely utilize this ethic in their moral reasoning. Instead, progressive worldviews focus on the role of community in a widely humanistic sense of the word. This is not to suggest that conservatives do not utilize community in their moral reasoning, but rather that it takes the form of responsibilities to more institutionalized groups such as family and nation.

In applying this theory to the development of adolescent identity, these ethics offer some useful insights. In further work by Jensen, she described how the three ethics evolve in an individual over time (Jensen, 2011). From childhood through adolescence and into adulthood, autonomy remains fairly stable and does not fluctuate over the lifespan. However, community slowly but consistently grows throughout life. Such an insight gives some elucidation into how adolescent development seeks to initially and strongly individuate and later find an integrated balance between autonomy and community. The ethic of divinity does grow over time, however, there tends to be a short period of time where it sharply rises and then stabilizes. This period occurs primarily during adolescence and emergent adulthood. It should be noted, however, that the degree to which the ethic of divinity rises is dependent on a conservative or progressive worldview.

From a moral development standpoint, the treatment course curriculum for this study was again attempting to provide a framework. From Jensen's theoretical perspective, the focus would be on helping students to find the balance between autonomy and their growing sense of community through intrinsic self-esteem and the community engagement which gives those intrinsic qualities meaning (i.e. self-actualization and self-transcendence). It is important to explicitly state that even though this course was inherently based in humanistic psychology and worldview development, it does not try to dissuade or restrict the individual's ethic of divinity or conservatism. To the contrary, a major unit of the course centers upon the role of spirituality and religion in giving one a sense of legacy, fulfillment, and purpose

in life. Such discussions primarily emphasize the positive aspects which spirituality bring to psychological growth. Although, a theme throughout the course is to question doctrinal, traditional, and authoritarian edicts in all realms, including those related to divinity. Again, the goal was not to dictate what adolescent religious moral identity should be, if any, but rather to provide a way of humanistically interpreting and understanding their spiritual explorations.

An additional topic of importance to discuss in relation to adolescent development is that of narcissism. Since one of the expected outcomes of this research was a decrease in narcissism (increase in humility), it is critical to understand the possible impacts such a change might have on the adolescent. Traditionally, the increase in egoistic narcissism seen during adolescence has been considered a negative effect of the developmental process that results as a defensive mechanism to cope with an unstable identify (Blos, 1962). However, recent research suggests that this may actually serve as a protective function while the young person is working toward identity achievement (Aalsma, Lapsley, & Flannery, 2006). For adolescents, the construct of narcissism is closely related to another construct referred to as the "personal fable" (Elkind, 1967). The personal fable is falsehoods that an adolescent perceives about his or her self, which together create egocentrism during identity development. These fables include "invulnerability (i.e., an incapability of being harmed or injured), omnipotence (i.e., viewing the self as a source of special authority or influence), and personal uniqueness (i.e., 'No one is capable of understanding me')" (Aalsma et al., 2006, p. 482). Each one of these elements may work to protect the adolescent from psychological harm. For instance, Bjorklund and Green (1992) claim that the personal fable may allow adolescents to take necessary experiential risks which give them important knowledge about themselves and their world. Without the shielding of this personal fable these experiential risks would not be taken. Indeed, Aalsma et al. found that invulnerability and omnipotence were positively correlated with psychological adjustment and negatively with internalization of negative thoughts. However, this also led to correlations with narcissism and delinquent risk-taking behavior as well. It appears that the personal fable is a double-edged sword, which both benefits and harms the wellbeing of adolescents in their quest for an identity that is integrated with the community. Finally, their finds demonstrated that the aspect of personal uniqueness did not serve any positive function, and only seemed a detriment to the adolescents who participated in the study. This element of the personal fable was negatively correlated with all mental health aspects tested.

This is of particular importance for this research, as the curriculum is actively attempting to impact the personal fable elements of invulnerability and personal uniqueness. The later of these two

will be influenced through the self-transcendence development. Developing a transcendent worldview necessarily means feeling a persistent connection and relation with the whole of humanity, Nature, and cosmos (Maslow, 1972). Such a perspective is in direct conflict with the idea of personal uniqueness. Further, breaking down this uniqueness fable may also open up adolescents to the understanding that their identity development process has been, and continues to be, a shared experience with the rest of world, and therefore they can learn from the knowledge and experiences of others. Unfortunately, even though uniqueness may have no redeeming qualities, invulnerability does seem to have some positive developmental functions. The intended curriculum attempted to instill a present-time orientation in the students through various explorations of death reflection. This process inherently means that individuals can no longer existentially distance themselves from the idea that death is unpredictable and can happen to anyone, including oneself. Such an acceptance is in conflict with the invulnerability fable. However, it is important to ask whether a present-time orientation would adversely impact identity development? Potentially, it could do so by reducing the amount of necessary experiential risks that adolescents are willing to take.

There is an implicit assumption built into this concern, which is that reducing adolescent invulnerability necessarily means leaving them psychologically vulnerable. However, such an assumption denies the possibility that there are other coping mechanisms which can serve protective functions. It is well established that identity crises can happen throughout the lifespan which require exploratory moratoriums (Tedeschi & Calhoun, 2004), and yet not all individuals retract into a bubble of narcissistic invulnerability. It is argued here that the very act of developing a greater intrinsic self-esteem and transcendent worldview serves this protective function. The PTG process offers insights into how later-life moratoriums can be engaged in without the need for increased narcissism. Indeed, PTG flourishers exhibit deceased narcissism and related attitudes (Martin & Kleiber, 2005). For these people the need for invulnerability is supplanted by an arguably more stable approach through acceptance. That is, it can produce both an acceptance of self and an acceptance of the impermanence or changeability of the self. These are two primary outcomes of the development of intrinsic self-worth and a present time orientation, respectively. The previously described development model claims that internalizing these concepts can lead one toward greater self-actualization and self-transcendence.

This point is well exemplified by a popular TED Talk of Brene Brown (2010). Brown is a qualitative researcher who has studied the constructs of shame and vulnerability for more than a decade, and through her research has reached conclusions that support this perspective. Speaking

about those who developed a strong sense of belonging and personal connection with their world, she quite movingly and articulately stated that:

> Courage, the original definition of courage, when it first came into the English language -- it's from the Latin word "cor," meaning "heart" -- and the original definition was to tell the story of who you are with your whole heart. And so these folks had, very simply, the courage to be imperfect. They had the compassion to be kind to themselves first and then to others, because, as it turns out, we can't practice compassion with other people if we can't treat ourselves kindly. And the last was they had connection, and -- this was the hard part -- as a result of authenticity, they were willing to let go of who they thought they should be in order to be who they were, which you have to absolutely do that for connection (8:39-9:39).

Brown, then concluded her talk with this advice based on her research:

> This is what I have found: To let ourselves be seen, deeply seen, vulnerably seen. . . . And the last, which I think is probably the most important, is to believe that we're enough. Because when we work from a place, I believe, that says, "I'm enough". . . . then we stop screaming and start listening, we're kinder and gentler to the people around us, and we're kinder and gentler to ourselves. (19:01-20:04)

Even though Brown is using different terminology and is speaking as a public orator, her conclusions can be easily connected back to the idea of the personal fable. Building up one's sense of intrinsic acceptance may allow the need for invulnerability and personal uniqueness to dissipate, and for vulnerability to positively impact one's development. This link between intrinsic self-worth, acceptance, and vulnerability is seen throughout the literature on PTG (Martin & Kleiber, 2005; Tedeschi & Calhoun, 2004). Further, Brown contended that this acceptance-vulnerability development enables a person to more deeply connect with others and transcend the isolation which plagues many, including adolescents.

Ultimately, what this research is suggesting is that firstly, vulnerability can be a positive developmental trait which opens one up to deeper connection if it is paired with the development of intrinsic self-worth and acceptance. Secondly, that the possible protective functions of invulnerability need not be the only protective function, and the decreasing of invulnerability does not necessitate exposure and harmfulness. A shield manufactured out of wood may be easier to construct and more

natural, but one made of tempered steel can provide even greater protection. However, the steel shield requires more effort to construct since it is not as natural. So too is the case of invulnerability. The treatment course curriculum may offer students a developmental framework from which to build an identity that is more stable and less prone to the deleterious effects of the personal fable.

In addition to the treatment course possibly aiding in identity development, it may have the potential to provide guidance in the adolescent search for personal meaning. During this stage of life, meaning and purpose begin to take an important role in overall development (Hill, Burrow, O'Dell, & Thornton, 2010). In the search for answers, meaning and purpose often lead to existential examinations, and this treatment course is largely based in existentialism due to the focus on PTG and death reflection. However, it could be argued that adolescents are too young for such abstract and complex inquiries. To such a position Fitzgerald (2005) stated that:

> by avoiding the use of existential ideas as they might apply to adolescents, because they are "too young" and "not advanced enough" to understand them, a disservice is being done. We are withholding the tools that may help them progress through a period of often painful adjustment (p. 798).

Indeed, adolescence may be the ideal age to begin exploring existential questions related to the purpose and meaning in life, as these awakened persons crave answers and direction for their future. There is a growing body of literature that advocates for introducing young abstract thinkers to such concepts as a means of promoting stable and pro-social development (Hacker, 1994; Shumaker, 2012). This treatment course was designed to provide some of that guidance through the transformative learning previously discussed. However, that description lacked an examination of how transformation relates to personal meaning and purpose. To understand such a relationship, it is helpful to explicitly delineate between the terms "personal meaning" and "purpose." Succinctly, personal meaning is considered to have a number of different facets, one of which is purpose (Baumeister, 1991; Reker & Wong, 1988). Purpose is differentiated from its more general counterpart in that it is goal oriented, focused on external contribution, and has actionable progress toward an achievement (Damon, Menon, & Cotton Bronk, 2003). In contrast, meaning may be inwardly focused and does not necessarily have to relate to some manifestation of an achievable goal. Instead, meaning addresses more abstract questions of existence. In short, meaning seeks to answer questions of why one exists and experiences the world the way he or

she does, while purpose provides the what and how a person can actualize one's personal meaning within their life.

Of course, meaning and purpose are inexorably linked, but the focus of the treatment course is to provide a meaning framework for students to interpret their experiences. Through such a framework, the adolescents may be able to better ascribe positive meaning and value to their turbulent teens years. There is evidence to suggest that contemplating existential issues in a search for meaning provides more developmental stability, encourages pro-social attitudes, and even decreases risk of anxiety, depression, and anorexia (Fox & Leung, 2009; Hill et al., 2010; Shumaker, 2012; Yuen, Lee, Kam, & Lau, 2015). As Fitzgerald (2005) pointed out, adolescence can be a painful period which an existential toolbox could mitigate. Struggle and trauma are inevitable aspects to life, but adolescents who are newly able to contemplate the existential nature of such events are often left without guidance on how to interpret and ascribe meaning to these challenging times. A meaning framework may provide students with not just explanations for their current strife, but a means of psychologically incorporating future unforeseen events. The treatment course does this by exploring the human condition from an evolutionary and psychological perspective on multiple levels including trauma events, cultural valuations, spirituality, material and non-material motivations, societal institutions, and transcendence. The ideal result of these examinations is to remove much of the mystery and empty platitudes that often surround the quest to understand how one's feelings, motivations, and purpose integrate with the larger sociocultural world one inhabits.

Summary of Transcendence Development Theory

The theory development and educational intervention described above offer potentially novel insights into human growth and flourishing. Such elucidations originate from the construction of new psychological theory, grounded in the previously well-established arena of humanistic psychology. Specifically, the mergence of self-determination theory and Maslow's theories of motivation uncover a path which can lead the individual from a place of deficiency-focused materialism to growth centered self-transcendence.

To understand the destination of this path, the construct of TOW was established and defined as a perception of reality in which one perceives oneself as intimately and inseparably connected to the greater whole of humanity, nature, and the cosmos. This state is not purely dichotomous, but instead exists on a spectrum from separateness to oneness, and an individual's average day-to-day experience

may fall anywhere along this dimension. Increasing a personal experience of TOW, the highest level of need, requires an examination of the lower self-esteem need. Even in Maslow's original conception of self-esteem, he delineated two distinct types, but viewed them as both equally acceptable methods of satisfying the need (Maslow, 1951). Later, self-determination theory would define these two types as extrinsic and intrinsic self-esteem (Kasser & Ryan, 1993; 1996). The extrinsic means of satisfying self-esteem is predicated on culturally defined and indoctrinated perceptions of success, such as wealth, status, power, prestige, and attention. Acquiring these external commodities then increases one's value and worth within a given culture and society. Conversely, intrinsic self-esteem derives from exploring one's internal potentials and desires irrespective of cultural expectations. These may include self-cultivation and knowledge, emotional connectedness, and community interaction (Sheldon & McGregor, 2000). In order to progress upward into the growth needs of self-actualization and self-transcendence, there must be some degree of self-knowledge, which is only achievable through intrinsic satisfaction of self-esteem. The reason for this hindrance stems from a somewhat self-evident characteristic of extrinsic self-worth. Sources for this type of self-esteem originate externally from one's cultural definitions of success, and as such do not necessitate self-understanding or self-exploration. Such a lack of intrinsic knowledge acts as an obstruction on the path toward both self-actualization and self-transcendence. However, as extrinsic and intrinsic self-esteem are domain specific, the degree to which one is growth-hindered is likely dependent on how much of a person's self-esteem sources are extrinsically driven.

Promoting a person's development of intrinsic self-esteem through education, while shifting him or her away from extrinsic sources of self-esteem, required an examination of areas where such transformations occur naturally and are well-documented. PTG, offered such a trove of experiences from which to draw. Individuals who have had life-altering traumatic experience, and grew as a result, demonstrated increased intrinsic valuation, decreased extrinsic valuation, and greater transcendent connectedness across a number of observed areas as compiled by Martin and Kleiber (2005). These transformations in values, personality, and beliefs are likely the result of having one's worldview shaken through a traumatic experience (Tedeschi & Calhoun, 2004). The event and its associated experiences cannot be readily integrated with preexisting worldview schema, and consequently causes a reevaluation of worldview perspectives. Such introspective analysis allows the individual to directly question previously unconscious extrinsic motivations which may have been driving their goals and attitudes. In their place, more intrinsically resonant motivations take hold, and this newfound self-

knowledge enables the person's focus on his or her own growth needs of self-actualization and self-transcendence in ways that were not possible before. As a result, the PTG flourishers become more connected, engaged, and concerned with their communities and humanity as a whole (Martin & Kleiber, 2005).

This generalized process, is also seen in the realm of TLT, but to a lesser degree. This type of education hinges on intentionally transforming worldview perspectives by initiating a "disorienting dilemma" within students that transform them into more pro-social, empathetic, and connected individuals (Mezirow, 2000). Once the students are presented with concepts, experiences, or information which cannot be readily integrated into their worldview, TLT courses are meant to guide them though a process of exploring alternative meaning-making perspectives which are more adaptable, inclusive, and stable. The primary mechanisms for this transition period are self-reflection, dialog, and journaling within a safe and supportive environment (Mezirow, 1991; Taylor, 2008). As such, these elements were heavily integrated into the treatment course for this study.

In addition to TLT's general design structure, confrontations with death will also be incorporated into the course as a source of disorienting dilemmas. This is meant to initiate a similar process to that of PTG through death reflection, which differs from mortality salience (Cozzolino et al., 2004). Death reflection is less abstract or symbolic, and instead focuses students on more direct contemplation of their own mortality. Research into SST has shown that inducing these reflections, thereby creating a closing time horizon within the individual, results in greater happiness, engagement with life, and gratitude for that life (Carstensen & Fredrickson, 1998; Fung et al., 1999). This effect is attributed to a shift from focusing goals on an acquisition of future social resources, to that of emotionally meaningful goals in the present moment (Carstensen & Carstensen, 2004). Indeed, PTG flourishers demonstrate this same increased propensity for living in the moment (Martin, Campbell, & Henry, 2004; Martin & Kleiber, 2005). Therefore, the treatment course will seek to both engage in death reflective exercises, and stress the importance of living in the present moment through class assignments and activities.

Chapter 3: Methods

Participants

Participants for this study were taken from two private schools in the Hawaiian Islands, with some additional snowball sampling allowed to increase the final sample size so that a more viable factor analysis could be performed (Schumacker & Lomax, 2010). The only requirement for involvement in the research was that the participant be between the age of 13 and 19 years old, i.e., adolescent teenagers. This age range was chosen because it represents the timeframe when most individuals develop abstract reasoning and become capable of entertaining deeper moral and philosophical problems (Inhelder & Piaget, 1958). Such a level of cognitive development was crucial for this research, as inventory questions and the treatment course directly inquired about abstract concepts related to transcendence, purpose and meaning, existentialism, and the Good life. Conversely, participants beyond their adolescent years were not ideal, as a goal of this research was to untangle the development process that impacts Transcendent Ontological Worldview (TOW) based on individual experiences. Therefore, the more personally influential events one has in one's life, the more difficult it becomes to identify key experiences that commonly bind developmental pathways.

In total, 167 adolescents (76 male, 91 female) participated in the first wave of research inventories, with an average age of 16.4 years. From these participants, 79 (47.3%) attended a private Buddhist high school where the principal researcher is employed, while another 65 (38.9%) teens came from a more secular private high school. A final 23 (13.8%) were found through snowball sampling. Most participants held at least American citizenship (86.8%), though 12 unique nationalities were reported with only Japanese (7.8%) and Chinese (4.8%) citizenship having any appreciable significance. However, students in the study showed considerably more diversity in ethnic and cultural background, particularly since the adolescents were asked to include all known ethnicities, and not just a single dominant one. Twenty-two distinct ethnicities were indicated, with seven of these above 2.5% of the sample; Japanese (50.3%), Caucasian (41.3%), Chinese (24.6%), Latinx (9.0%), Hawaiian (7.8%), Korean (7.8%), and Filipino (6.6%). Such an ethnic profile is fairly representative of the general population of Hawai'i (U.S. Census Bureau, 2015), and this sample maintains that diverse structure. There was also a diverse spread of spiritual beliefs reported, with no specific religion dominating. It should be noted that two different demographic questions were asked, with the first about the spiritual family background that the adolescent was raised in, while the second question focused on the tradition with which the participant personally identified. The statistics shown here only address the later of these two questions

with students reporting Christianity (22.8%), “Spiritual, Not Religious” (22.8%), Buddhism (21.6%), Atheism (18.6%), and Agnosticism (8.4%). However, the exact proportion of those claiming atheism or agnosticism may not be accurate due to the terminology used. It appeared that a minority of the adolescents were not familiar with these terms, choosing instead to write messages such as “No”, “None”, or “I don’t know.” Those who wrote definitively negative words or statements were coded as atheist, while those who indicated ambivalence were coded as agnostic. Finally, an attempt was made to obtain an approximate indication of economic status. Since children are often not privy to household finances, asking specific questions about total household income would not likely have resulted in meaningful data. Instead, each participant was simply asked to rate their household as one of four categories; “low income” (3.0%), “lower middle class” (30.5%), “upper middle class” (61.1%), and “wealthy” (4.8%). This showed a level of affluence that was above the general population with the bulk of participants reporting “upper middle class” and only five individuals indicating “low income” (U.S. Census Bureau, 2015). Certainly, this limited range of economic background was not ideal for data analysis, but was also not unexpected since most of the students have parents that can afford a private school education for their children.

Treatment Course

The treatment course, which was created specifically for developing TOW, is titled “The Psychology of Peace and Conflict.” The following is a detailed description of the course development, goals, and structure, based on the key design elements derived in chapter two. Further information is provided in the student course syllabus in Appendix A. This class met for six weeks, five days a week, for two-hour class periods. On the first day of class, students were told that their primary purpose in the class was not to accomplish homework and projects, but to question everything in the course. They were expected to question the course content and instructor, social institutions, humanity, and especially their own emotions, values, and worldview. This set the tone for the rest of the course in terms of hopefully unseating worldview, and developing more intrinsic ways of being.

The class was designed to have a light workload and be relatively stress-free in order to make the students feel comfortable and relaxed. There were no exams or large projects. In transformational education, comfortability in a class is critical to encouraging a person to open up and reevaluate their worldview assumptions. This is largely due to the need for transformative methods to involve holistic approaches (Dirkx, 2006). However, despite all attempts to engender a sense of comfortability and non-stress, some students may still have felt trepidations about vulnerably opening themselves for

transformation. The students' ease and comfort during the class was not a measured variable, but it was assumed that providing a conducive environment would result in this effect for most students. The course grade was determined by a) reflective journal writing, b) in-class engagement during group discussions, and c) in-class projects. The only homework assigned in the course was approximately two reflective journal writings each week, where students were asked to deeply question the topics from class and draw on personally vulnerable and emotional experiences as a basis for their questioning. From the course syllabus, "Journals are assessed on the following criteria a) development of ideas, b) putting personal emotion into the writing (emotional vulnerability), c) tying course content to personal experience, d) and/or making larger connections to humanity, society, and life." Willingness to engage in introspective writing has been previously shown to be the largest factor in determining how much personal growth an individual experiences in a transformational class (Chirema, 2007; Merriam, 2004).

Course content can be broken up into two primary categories, each meant to force students to question their assumptions about how the world and humanity function: 1) Understanding the nature of societal institutions, and 2) humanistic and social psychology. Enacting this questioning in students was a primary goal of research question two, but it was not a measured or operationalized construct. Instead, best practices based on transformative learning were employed to initiate disorienting dilemmas (Mezirow, 2000). As such, it must be assumed that worldview was questioned generally for the class. To accomplish this, each day approximately half the class time was spent on each category. To keep the workload low, most information was conveyed through short 5 to 20-minute videos that discussed relevant topics from personal perspectives, such as RSA videos or TED Talks. Examples of these videos are given in Table 3.1. Each video was given a brief contextual framing by the instructor, but limited instructions on how students ought to interpret the videos. Videos were chosen as the primary mechanism for conveying content because these videos present information in intellectual, yet emotionally powerful stories to engage students more holistically. Indeed, students were often moved to tears by some of the more powerful stories. After watching one or more videos, students were then asked to debate and discuss their personal views on the videos, given specific prompt questions. A critical step in the worldview transformation process is discourse. That is, testing out one's new worldview perspective through discussion and dialog (Mezirow, 1991). Such class activities provided another opportunity for students to explore new meaning perspectives in addition to the introspective writing assignments.

Table 3.1. Sample of Treatment Course Videos

Source	Title / Description	Purpose
YouTube	Kind father's hospital bills paid	Opening Emotional Video
YouTube	Attraction shadow dance: Britain's Got Talent	Opening Emotional Video
YouTube	Where the hell is Matt 2008	Opening Emotional Video
YouTube	My beautiful woman 3: mother's love	Opening Emotional Video
YouTube	Man sings to his 93 year old dying wife	Opening Emotional Video
YouTube	Son makes decision to let his mother die	Opening Emotional Video
YouTube	29 year old hears for the first time	Opening Emotional Video
TED Talks	Sam Harris: Science can answer moral questions	Introduction to morality as science
TED Talks	Chimamanda Ngozi Adichie: The danger of the single story	Worldview perspective
TED Talks	Derek Sivers: Weird, or just different?	Worldview perspective
TED Talks	Chip Conley: Measuring what makes life worthwhile	Maslow and non-material needs
RSA ANIMATE	The surprising truth about what motivates us	Non-material needs
RSA ANIMATE	The high price of materialism	Danger of materialistic valuing
RSA ANIMATE	Changing educational paradigms	Sociocultural origin of education
TED Talks	Ken Robinson: Do schools kill creativity?	Sociocultural origin of education
TED Talks	Ric Elias: 3 things I learned while my plane crashed	Existential motivation
TED Talks	Candy Chang: Before I die I want to…	Existential motivation
TED Talks	Stephen Cave: The 4 stories we tell ourselves about death	Legacy as existential motivation
Movie	Flight from Death	Terror Management Theory
TED Talks	Chris Albani: On humanity	Personal stories of tragedy & growth
TED Talks	Aimee Mullins: The opportunity of adversity	Personal stories of tragedy & growth
TED Talks	Janine Shepherd: A broken body isn't a broken person	Personal stories of tragedy & growth
TED Talks	Ernesto Sirolli: Want to help someone? Shut up and listen!	Economics & agency
TED Talks	Laura Carstensen: Older people are happier	Impact of closing time horizon
TED Talks	Carl Honore: In praise of slowness	Engage in the present moment
TED Talks	Karen Armstrong: My wish: The Charter for Compassion	The purpose of religion
TED Talks	Thandie Newton: Embracing otherness, embracing myself	Experiencing self-transcendence
TED Talks	Jonathan Haidt: Religion, evolution, and . . . transcendence	Origin of self-transcendence
Movie	Atlas Cloud	Legacy and self-transcendence
RSA ANIMATE	The empathetic civilization	Building a peaceful future
RSA ANIMATE	21st century enlightenment	Building a peaceful future

In the societal institutions content area, topics were presented in the following scaffolded order: educational systems, societal definitions of success, economic systems, religion and science, and the justice system. For each topic, historical context and psychological factors were investigated. At the end of each unit, students redesigned each societal institution through some unique group project in order to make it more inclusive, compassionate, and capable of promoting peaceful individuals for the future. These projects included drawing the perfect school system, societal progress board game design, economic life flow chart, and scientific religion play acting. In contrast, in the social psychology category students discussed topics such as self-esteem, depression, death and mortality, natural human

biases, terror management theory, social identity theory, living in the present moment, the role of Nature in human stress and peace, and so forth. Each of these was taught not as abstract concepts, but more in terms of developing healthy skills in order to leverage this information for themselves and for understanding societal institutions. Activities related to this area included engaging in meditation, having students acknowledge and compensate for their own biases, and a field trip to a nature preserve.

Regardless of the week's topics, there was a strong focus on having students reflect on their own mortality several times each week in order to facilitate the development of a present living THO. (Cozzolino et al., 2004). For example, on the first day which death was discussed in class, students were asked to draw an image of death and then organize themselves into a chronological line based on the age they will be when they die. Later, the students are asked to write a reflective journal on their personal feelings during this activity. More broadly, the concept of trauma as routine was heavily emphasized during the course, again to aid in having students recognize the present moment and not attach themselves too strongly to expectations of an uncertain future. As a result of this, a secondary goal of the course was to normalize tragedy as a basic aspect of all life, potentially decreasing the initial shock of having a traumatic experience. This opened up avenues of discussion about how to cope with such events when they occur and what to personally expect from the experience psychologically.

Further, each class session began with a short two to seven-minute emotional video which emphasized human connectedness, the fragility of life (mortality), and the beauty of the moment, often all with the same clip. The majority of the videos dealt with topics of tragedy or death. The intent of these videos was to break down the academic distance that students have been conditioned to maintain toward knowledge, and instead engage emotionally and passionately in the course. These were the videos where students were most often seen crying with both tears of sadness and joy. This again is focused on engaging students in a holistic manner that is "about inviting 'the whole person' into the classroom environment,. . . . mean[ing] the person in fullness of being as an affective, intuitive, thinking, physical, spiritual self" (Dirkx, 2006, p. 46).

Measures

Each participant in the study was given a set of inventories to assess their levels of IVO, THO, and TOW. Further, to determine if the greater connectedness generated by TOW had tangible impacts on values and development, additional inventories were given to assess empathy (Spreng, McKinnon, Mar, & Levine, 2009), and narcissism (low humility; Raskin & Terry, 1988). Finally, a short demographics survey was given after all inventory questions were completed. The estimated completion time for all

items was approximately 35 minutes, and that appeared to be accurate for most participants. All inventories, except the demographics survey, were readministered approximately five to six weeks later. Finally, in 10 select cases, personal interviews were conducted to gain a greater depth of understanding into the development process and experiences related to TOW.

Intrinsic Value Orientation. In a number of studies referenced within this text, researchers have successfully used the Aspiration Index (AI) with reliabilities typically between 0.70-0.90, to determine the degree to which a person's value orientation is extrinsic or intrinsic (Cozzolino et al., 2004, Cozzolino et al., 2009, Kasser & Ryan, 1996; Sheldon & McGregor, 2000). Since research was heavily influenced by past studies that utilized this index, it was appropriate and beneficial to continue its usage here. However, as noted in chapter two, there is a difference between values and motivation, which may impact results. Whereas values imply only holding particular beliefs in high regard, motivated self-esteem attainment necessitates goal-driven action. The AI contains seven subscales, each associated with a different intrinsic or extrinsic valuation: self-acceptance (α =0.79), community feeling (α =0.75), affiliation (α =0.81), physical fitness (α =0.72), financial success (α =0.84), attractive appearance (α =0.76), and social recognition (α =0.73; Grouzet et al., 2005). It was initially unclear how each of these dimensions would translate from simple valuation to practical enactment as sources of self-esteem, therefore, all seven subscales were included in the inventory.

Time Horizon Orientation. At the time of this study there were no inventories which measure an individual's time horizon as defined by Socioemotional Selectivity Theory (SST). The entirety of research into SST has been conducted using behavioral experiments, rather than self-report measures (Carstensen & Fredrickson, 1998; Fung et al., 1999). This was where the previously mentioned connection to mindfulness was essential. There are numerous measures of mindfulness, and some of these metrics attempt to directly assess the degree to which an individual "lives in the present moment." For instance, the Cognitive and Affective Mindfulness Scale-Revised (CAMS-R; α = 0.76) is a 12-item inventory with four subscales which relate to aspects of living in the present moment: awareness (α = 0.46), attention (α = 0.79), present-focus (α = 0.47), and acceptance (α = 0.66; Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007). It will be explained in more detail in chapter four, but please note that an error caused two of this metric's items to be omitted from the final inventory packet. Even though these subscale reliabilities are somewhat low, they still provided a measure of one's present living. However, this one inventory was not enough to comfortably claim that THO was being measured in terms of both reliability and validity. Indeed, since there were no inventories which

used SST as a basis for measuring one's present living, there were reasonable validity concerns. However at least in terms of face validity, a reasonable connection could be established between THO and aspects of mindfulness. In order to better establish this connection, a second mindfulness inventory was included as a repeated measure. The Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003) is a 15-item unidimensional (α = .92) inventory specifically designed to measure "attention to and awareness of present-moment experiences in daily life" (Feldman et al., 2007, p. 183). This particular scale represents the most direct measure of present living found among the mindfulness literature (Bergomi, Tschacher, & Kupper, 2013). Further, through the development of the MAAS instrument, the authors found that one of their groups had a significantly higher average baseline score than other groups. These were patients currently being treated for cancer. In their discussion the authors did not mention PTG or SST, however, if individuals in the midst of death confronting traumas rate higher on MAAS, it lends credence to claim that aspects of mindfulness can be used for the THO variable. This made the MAAS an ideal candidate to use for the measurement of THO, and combined with the CAMS-R scale, it could potentially offer a strong set of repeated measures.

Transcendent Ontological Worldview. To the knowledge of this author, only five previous attempts have been made to measure some aspect of transcendence directly (Cloninger et al., 1993; Levenson et al., 2005; Piedmont, 1999; Reed, 1991; Tornstam, 1994). Considerable attention was paid in carefully defining what is meant by transcendence within the confines of this study. Yet, it did not go so far as to generate its own metric scale. As such, measurement of TOW was dependent on the use of these other transcendence measures. This creates some concerns about the validity of the measure, as was the case with the THO variable. To minimize these issues, 3 different transcendence scales were used for repeated measures.

Even though the definitions of transcendence vary slightly in form, all of these inventories had some subscale which is related with moving beyond the self and connecting with a greater whole. Unfortunately, from a Maslovian perspective, they tend to be mired by other less relevant factors. Despite this, of particular interest are certain aspects of Tornstam's gerotranscendence scale (1994), with its two subscales of self-transcendence and cosmic transcendence. This inventory was never analyzed to determine its reliability. Atchley (1999) attempted to create a shortened version of this inventory using focus groups and found three subscales, but his reliability was only 0.66. The second transcendence measure used here was a 15-item, 4-dimensional metric called the Self-Transcendence Scale (STS; Reed, 1991). The reliability for this scale spans 0.80 to 0.93, which is well within an

acceptable range. This metric was created around the nursing field in order to assess the quality of life in the elderly. Reed found that the highest well-being and life satisfaction was found in those who displayed high amounts of transcendence. In both of these first two transcendence measures, the intent was to study elderly persons near the end of life, however, this study repurposed them for use with teenagers. This was acceptable as the goal of THO was to push the teenager's mind toward thinking that is more in line with the elderly, and it was valuable to understand how youth interpreted the inventory questions as compared with older individuals. The final transcendence measure was the Adult Self-Transcendence Inventory (ASTI), which is also a 15-item metric, with two subscales of self-transcendence ($\alpha = .75$) and alienation ($\alpha = .64$; Levenson et al., 2005). Alienation is a negative measure of self-transcendence in that it represents the degree to which an individual experiences disconnection.

Values Development. Ultimately, increasing an individual's day to day experience of TOW needs to be tied to the observable characteristics which Maslow (1972) described. Since there were already a large number of inventories necessary just to ascertain the validity of the educational model, only two of these characteristics were focused on during this study: humility and empathy. Raskin and Terry (1988) established the 40-item Narcissistic Personality Inventory (NPI; $\alpha = .83$) which can be deconstructed into 7 subscales: Authority ($\alpha = .73$), Exhibitionism ($\alpha = .63$), Superiority ($\alpha = .54$), Entitlement ($\alpha = .50$), Exploitativeness ($\alpha = .52$), Self-Sufficiency ($\alpha = .50$), and Vanity ($\alpha = .64$). Narcissism is considered the opposite of humility, and it has thus far not been possible to create a direct measure of humility due to the elusive nature of the construct (Tangney, 2000). As such, looking at individuals who were low on narcissism could provide some insight into humility. The second developmental characteristic to be evaluated was empathy, which used the Toronto Empathy Questionnaire (TEQ; Spreng et al., 2009). This unidimensional measure is comprised of 16-items, and has a reliability of 0.85.

Qualitative Interviews. A subset of 10 participants were requested to engage in more personal interviews. The selection of these individuals was based on an overall average of their relevant IVO, THO, and TOW scores that were determined during factor analysis. Those who showed extreme tendencies in either direction with significantly high or low scores were invited for interview. Extremeness was defined as any participant z-score more than 1.28σ away from the mean of the averaged z-score standard deviations across all model dimensions identified. The specific process for calculating the participants' z-score is described in chapter four. In total, four high-scoring and six low-scoring students agreed to the interview. The goal of these interviews was to understand more clearly

the mechanisms and processes which led to the participants' high or low experience of TOW. A grounded theory approach was utilized for these interviews with an emphasis on constant comparison methods (Merriam, 2009). This was useful as the goal of the interviews was to gain better understanding of how the proposed theory manifested itself. Additionally, the interviews served to illuminate the potential causes of anomalous data that did not perfectly fit the proposed model. Indeed, these interviews provided crucial insights into data that deviated heavily from theoretical predictions.

It was expected that these interviews could be emotionally vulnerable for participants, given the focus on trauma and tragedy. Yet, it was exactly a description of these experiences which was sought, and participants needed to be encouraged to comfortably express themselves. To elicit these responses, 12 guiding questions were developed in order to explore the students' experiences, worldview, and values. For each of the three variables IVO, THO, and TOW, three to four questions were designed so that the interviews remained centered upon the core research questions. The full interview questionnaire is provided in Appendix C, but as examples, these questions included, "At the end of your life when you look back, describe the accomplishments that would make you feel that your life had been valuable, fulfilling, and complete," "Explain what it means to you if someone says that "each of us has an intimate and inseparable connection to the greater whole of humanity, nature, and the cosmos," and "Describe the thoughts and emotions that arise when you contemplate your mortality." A final two questions were incorporated which asked participants, not about a particular aspect of the studied constructs, but instead about their unique personal experiences in life. These two questions were identically worded except one inquired about a positive experience while the other a negative one: "Describe a major positive event or experience in your life that you feel has greatly shaped your sense of identity, worldview perspective, and/or relationship with others and the world." Instructions were read to the interviewee prior to beginning, which outlined the goal and type of open-ended responses that the researcher was hoping for. Specifically, the instructions stated that,

> The following qualitative open-response questions are intended to gain a deeper understanding of your sense of identity, worldview, and values. As such please answer each question as descriptively as possible, and avoid superficial responses that are only a few sentences. Further, despite the abstract nature of the below questions, please provide relevant personal examples of how your answers manifest themselves in your thoughts and actions.

Once this paragraph was recited to the participant, all 12 questions were asked in order exactly as written. However, unique follow-up questions were asked individually based on cursory responses and potentially fruitful avenues that might explain theory or anomalies.

Inventory Procedures

Final inventory packets for the first wave of data taking contain 179 items, which was estimated to take approximately 35 minutes to complete. Time was appropriated during the students' regular class schedule at both schools to administer the inventories. Brief instructions were given to the classes about how to complete the items. All students, including those in the treatment course, were given no additional information about the purpose of study beyond that provided in the assent forms (Appendix D): ". . . to understand the development of positive personal growth traits, such as empathy, self-confidence, and humility, as a result of both life experience and directed education". Once instructions were given, the students were left to accomplish the inventories in silence, with an average time-to-complete around the predicted 35 minutes. In cases where students were absent, they were allowed to fill out the inventory packet as soon as they returned under the same environmental conditions as their peers. This collection process accounted for 86.2% of the participants in the first wave. Approximately five weeks later, the same inventories were administered again under the same conditions, minus the demographics survey. Of the potential 144 participants for the second wave, 116 were received, resulting in a high retention rate of 80.5%.

The remaining 13.8% (23 participants) came from snowball sampling. For those participants who were referred in this manner, an inventory packet, assent/consent forms, and completion and return instructions were mailed to the address provided. From the dates listed on the returned assent and consent forms, the second wave inventory packets were mailed out approximately 4.5 weeks later. The response rate for this second wave snowball sampling was considerably less, 39% (9 participants). Collectively, the overall retention between the first and second waves was 74.9%, with an average time span of 34 days between testing.

Chapter 4: Results

Chapter Summary

Across both waves of data collection for this study 292 survey packets were acquired, each containing 168 items, for a total of 49,056 pieces of data. Such a large amount of data required a substantial analysis in order to distill the information into meaningful and interpretable statistics that were capable of addressing the two research questions. The analyses for research question one were particularly lengthy, given the number of steps required to establish a valid model. Therefore, before explaining the details of the analyses accomplished, it is worthwhile to provide an outline of the process used to arrive at each research question's quantitative outcomes.

Model Construction and Validation. Research question one will be addressed first in this chapter, which required the development of a Structural Equation Model (SEM) that represented the theoretical model discussed in chapter two. Creating a valid and accurate model posed some challenges, as the specific factors and composite items were not predefined, and instead based on the proceeding analysis. As a first step in that factor identification and model construction, an exploratory factor analysis (EFA) was conducted to determine if the structure of all inventories remained consistent with those reported in the literature. None of these measures were initially tested on young adolescent populations, therefore, it was necessary to examine whether the previously established factor structure was valid for each instrument. It should be emphasized that the purpose of this analysis was only to verify if the instruments were functioning as intended for the constructs they were designed to measure. If some factor structures held true for this sample group and directly related to the three constructs of interest, then these subscales could be considered for use in the final model without the need for item analysis. Conversely, if factor structures demonstrated different loadings and were unrelated to any of the three constructs, then factor construction would be necessary. There may be valuable information found by analyzing the ways in which these adolescents interpreted each of the inventories used. However, such an analysis was beyond the scope of this research, and would not serve to address either research question. Therefore, except for the Aspiration Index (AI) which directly attempts to measures Intrinsic Value Orientation (IVO), dimensional interpretations were not made on inventories since item analysis and factor construction was necessary later in the process. In short, inventory EFA was only an intermediate, but necessary step in SEM development. If this is not of interest to the reader, he or she may skip to either factor identification on page 79, or final model fitting on page 93.

Having completed EFAs for all inventories, the second step in SEM development utilizes the results from these analyses to direct factor construction for both model variables and non-model variables. As mentioned previously, there were validity concerns related to the measurement of both the Time Horizon Orientation (THO) and Transcendent Ontological Worldview (TOW) variables. In order to address this, multiple inventories were used for these two variables. Once the data were collected, the questions from all variable inventories were aggregated together for an EFA. The goal of this analysis was to identify the relevant factors, THO and TOW, across all inventories. Special attention was paid to clearly establishing definitions for the THO and TOW metrics, and understanding them as spectrums from present- to future-oriented, and separateness to oneness, respectively. However, these inventories did not use exactly the same operationalized definitions, and may not have been designed to measure the construct of interest. This could possibly have led to the measurement instruments assessing factors which were irrelevant to the THO or TOW variables. Exploring the amalgamated factors allowed for the identification of items which were pertinent to the study, and the removal of those which were not. Should the EFA identify irrelevant factors, then the questions associated with them would be removed from further analysis. When establishing these factor structures, TOW was required to be unidimensional to reflect the dichotomous spectrum from separateness to oneness. However, the other two variables, IVO and THO, were not required to maintain a unidimensional structure and demonstrated two and three dimensions, respectively. Further, during this second step additional non-model factors were established using a similar method, and included identification of dimensions for family education, death acceptance, social confidence, social dominance, present-focus, empathy, and transcendence outcomes.

Once the appropriate variable factor structures were determined, the third and final step in model construction examined several variants of the SEM for best fit. The basic path model was built from the educational process model shown in Figure 4.1. Note that this basic structure did not show second order latent variables for subscales, as these were identified during the factor analysis step. Based on best fit of this initial structural path, modifications were then made and tested to ascertain the proper structure which was both consistent with the data, and did not violate any theoretical precepts of the Maslovian framework. Corrections were made by exploring and eliminating variables which showed a significant amount of unexplained covariance. Finally, with a validated path model in place, correlations were explored with other factors that were determined during the EFA analysis phase.

Additionally, based on the relevant factors and subscale factors in the path model, potential interviewees were identified.

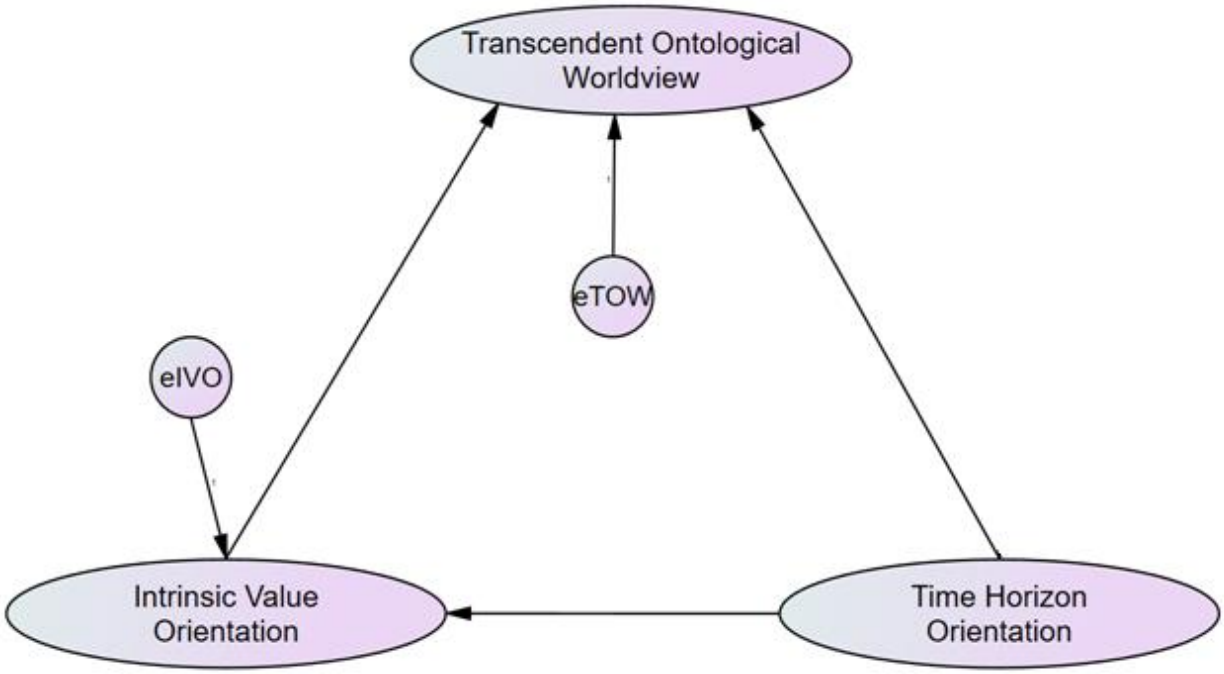

Figure 4.1. Theoretical Latent Path Model

Two-Wave Comparison. The second research question necessitated the use of two-wave data. Using the dimensions established in step two of the model construction process, each factor or subscale was examined using a longitudinal path model. It was hoped that some measure of growth could be seen in the dimensions across the two waves. Unfortunately, due to a number of limiting data constraints, none of these longitudinal analyses showed any reliable outcomes from which to draw conclusions. Despite this poor result, correlation comparison between factors in both waves showed strong consistency with little deviation, which speaks to the stability of the established factors. In particular, the TOW model factor demonstrated a 0.23 correlation or better with having taken the treatment course across both waves. This was a significant result which supports the assertion that the treatment course impacted the participants' experience of TOW.

Correlation Analysis. In the final quantitative section of chapter four, correlations were explored among model variables, non-model variables, and demographics. Model variables demonstrated a significantly positive correlation with the pro-social factors of social confidence,

empathy, family education, present focus, transcendence outcomes, and a significantly negative correlation with social dominance. Such outcomes emphasize the importance of the transcendence development process. If individuals experience high levels of TOW, they are likely to be a positive contributing member of their community and society. This tendency toward contributing pro-social values and behaviors was further seen during the qualitative interviews.

Qualitative Interviews. The concluding section of this chapter explores the responses from a set of 10 interviews conducted with adolescent participants. These individuals were not randomly selected, and instead chosen as a representation of extreme scores on the model factors identified during model construction, six low-scoring and four high-scoring individuals. Interestingly, whereas the high-scoring individuals appeared to value and behave as theoretically expected, low-scoring participants were broken into two district types. One of these types represented the extrinsically valued person as predicted, but the second low-scoring type did not fit into the theoretical model.

Analysis of Research Question One

Inventory Results. As an initial first step, for each inventory used in the study an EFA was conducted to examine how the factor structure of each measure may have changed given that it was used with a different participant group. Namely, in what ways did adolescents from Hawai‘i interpret and respond differently to inventory items. To the knowledge of the author, none of these inventories had been tested using adolescent populations, and in some cases were originally designed for use with the elderly.

Please note that all factor loadings shown in this chapter have been rotated using an oblimin rotation, since there is no clear theoretical justification for forcing factors to be orthogonal. The number of factors for each EFA was determined by setting an eigenvalue cutoff of 1.0. Any factors which fell below this cutoff were eliminated, and subsequently not depicted in the factor loading tables. Further, in all factor loading tables only values above $|\lambda| > 0.35$ are included. This low loading is primarily for tabular clarity, as a loading cutoff of 0.40 was used during statistical analysis and decision-making. A sample invariant 0.40 cutoff is often advocated as a minimum factor loading in data analysis texts (Field, 2005; Guadagnoli & Velicer, 1988). However, Hair, Tatham, Anderson, and Black (1998) contend that loading cutoff should be sensitive to sample size, and provide a guideline of 0.45 for samples of 150, while samples of 200 should aim for no less than 0.40. If this guidance is linear, then this sample of 167 participants would have a loading cutoff of 0.43, which is not substantially larger than the sample

invariant cutoff. For displaying factor loading results, it was desirable to at least provide the maximum absolute loading for each item included in the analyses, however, there were a number of items which fell below 0.40, and would have resulted in no data being provided in the table. Therefore, all tables use a display cutoff of 0.35 to ensure that at least one loading value is provided for every item.

Intrinsic Value Orientation. The Aspiration Index (AI; Kasser & Ryan, 1996) was originally found to have seven factors (self-acceptance, community feeling, affiliation, physical fitness, social recognition, financial success, attractive appearance), and that remained true when applied to this adolescent participant group. However, there were considerable differences in item loadings for the various factors, with only community feeling and social recognition maintaining the same item structure. The two factors of attractive appearance and physical fitness had only slight loading differences, but were not divergent enough to suggest a redefinition of the factors. However, loadings were substantially different among the remaining three factors of self-acceptance, financial success, and affiliation. These differences can be seen in Table 4.1.

Table 4.1. Comparison of Aspiration Index Factorization

Original Dimensional Structure		Refactored Dimensional Structure						
Factor	Item	Wholeness	Community Feeling	Social Freedom	Physical Fitness	Social Acolades	Attractive Appearance	External Validation
Affiliation	AI 9	0.70						
	AI 12	0.72						
	AI 15	0.78						
	AI 24	0.39						
	AI 31	0.72						
Community Feeling	AI 6		-0.77					
	AI 16		-0.84					
	AI 21		-0.86					
	AI 26		-0.85					
	AI 30		-0.90					
Self-Acceptanc	AI 8	0.40		0.47				
	AI 14	0.65						
	AI 18			0.63				
	AI 27	0.41					0.36	
Physical Fitness	AI 1				0.66			
	AI 7				0.72			
	AI 19				0.64			
	AI 25			0.48				
Social Recognition	AI 2					0.76		
	AI 5					0.88		
	AI 13					0.52		
	AI 23					0.83		
	AI 29					0.69		
Attractive Appearance	AI 3					0.36	-0.47	
	AI 10						-0.57	
	AI 17						-0.44	
	AI 22							0.82
	AI 32							0.49
Financial Success	AI 4						-0.73	
	AI 11			0.64				
	AI 20							0.68
	AI 28			0.69				

Note. $|\lambda| > 0.35$

According to Kasser and Ryan (1996), financial success is described as "[Being] wealthy and materially successful" (p. 281), and indeed, the content of the four associated items do address this construct, but during factor analysis only one of these original items remained, with the other three loading onto different factors. Further, two items that were originally part of "attractive appearance" loaded onto this new factor leading to a substantive conceptual change in the factor. A better

descriptive term for this revised factor may be external validation or social perception, reflecting each item's focus on positive attention gained for traditional cultural ideas of success. It is important to contrast this with another extrinsic factor of social recognition, which is defined as "[Being] famous, well-known, and admired" (p. 281). Even though all of the items loaded equivalently for this sample, it may be prudent to slightly alter this factor's title to distinguish it from the above recast factor. A commonality of all the items found in social recognition is that they required some level of achievement or effort. Unlike external validation which does not require a directed purpose to attain, these items necessitated some sort of action on the part of the individual in order to gain the social recognition. As such, it may be beneficial to rename this factor social accolades.

The second factor that necessitated redefinition was that of self-acceptance. The loadings for this factor were rather unexpected in that it comprised items intended to measure both extrinsic and intrinsic valuations. This was likely the result of two interacting causes, namely an initially poor conceptualization of self-acceptance and the life perspective which adolescents hold while deep in the process of individuation (Allison & Sabatelli, 1988). Firstly, Kasser and Ryan (1996) described self-acceptance as "Achieving psychological growth, autonomy, and self-regard" (p. 281), which appears to be combining three distinct aspects of self-acceptance. That is, a desire to work toward personal growth, the ability to have control over and make choices for oneself, and feelings of positive worth. Given these disparate facets, all meant to compromise a single factor using only four items, it is not surprising that the item structure did not hold well when applied to a different participant group. Indeed, only the two items that centered upon self-control and autonomy loaded onto the factor. In addition, the financial success items of "You will be financially successful, " "You will have a job that pays well," and the physical fitness item of "You will be relatively free from sickness," all loaded with the two preexisting autonomy items. Collectively, these items did not refer to self-acceptance, and instead purely focused on autonomy or social freedom. This kind of item interpretation can be expected given the age of the participants. During this period of development adolescents are highly driven by a desire to be independent and establish their own unique identities (Blos, 1962). Unfortunately, this perspective makes the factor less relevant for this research study as the AI, measuring intrinsic and extrinsic values, was meant to be applied to intrinsic and extrinsic sources of self-esteem. It is unlikely that the value of autonomy relates to some similarly defined source of self-esteem, and even less likely that it relates to the development of TOW. However, more will be said about this later as other data suggested complications in how the construct of self-acceptance applied in this theory.

The final factor which substantially changed for this participant group was that of Affiliation, "Having satisfying relationships with family and friends" (Kasser & Ryan, 1996, p. 281). In this factor no items were lost, but two were added. These items both came from the Self-Acceptance factor dealing with positive self-regard and growth ("You will know and accept who you really are," and "At the end of your life, you will look back on your life as meaningful and complete"). With these additions, the factor expands beyond just relationships to include a greater sense of fulfillment and completeness, and perhaps could be better titled emotional wholeness.

Time Horizon Orientation – CAMS-R & MAAS. Unfortunately, when identifying the specific items for the Cognitive and Affective Mindfulness Scale-Revised (CAMS-R) inventory, a version was used which excluded two of the 12 items. As a result, these items were not given to participants and the factor they were associated with, present focus, had only a single item, CAMS-R 9: "I am able to focus on the present moment." The missing items separately asked to what degree the participants were "preoccupied with the past" (item 7) and "preoccupied with the future" (item 2). The Mindful Attention Awareness Scale (MAAS) scale included a single item which used identical language, but combined to say, "preoccupied with the future or the past," and therefore this item was used as a replacement. In addition, the MAAS scale included a reverse scored item from that of CAMS-R 9, "I find it difficult to stay focused on what's happening in the present." An EFA still showed a 3-factor solution, and a separate present focus dimension did not emerge. It should be noted that when an EFA was performed on the three potential present focus items in isolation, they strongly loaded onto a single factor, with factor loadings, CAMSR 9 (0.77), MAAS 3(R) (0.81), and MAAS 13(R) (0.72), and explaining 58.4% of the variance with reliability $\alpha = 0.625$. Given the theoretical focus given to this construct in chapter two, this factor was retained for possible use later in the analysis. Finally, EFA using the ten items available from the CAMS-R produced the same factor structure as originally reported for three complete item sets (Feldman, et al., 2007). The one remaining present focus item (CAMSR 9), loaded moderately onto the attention dimension since the other two partnered items were missing. These loadings are given in Table 4.2.

Table 4.2. CAMS-R Factor Loadings

Item	Attention	Acceptance	Awareness
CAMSR 1	0.84		
CAMSR 5(R)	0.85		
CAMSR 10	0.75		
CAMSR 2		0.85	
CAMSR 3		0.83	
CAMSR 8		0.52	
CAMSR 4			0.87
CAMSR 6			0.76
CAMSR 7			0.42
CAMSR 9	0.53		

Note. $|\lambda| > 0.35$

In contrast to the CAMS-R, the MAAS did not maintain its expected factor structure. The MAAS inventory was supposedly a unidimensional measure, however, EFA produced a four-factor solution explaining 54.1% of the variance with loadings shown in Table 4.3. Of these, the first two factors included 11 of the total items, with only four items loading on the second two. This suggested only two primary dimensions, which were labeled attention & awareness and present focus. For reasons described below, none of the items from the MAAS survived to the final model, except for the two used in compensating for the present focus dimension of the CAMS-R factorization. As such, the scale will not be discussed in as much detail compared to other more relevant measures.

Table 4.3. MAAS Factor Loadings

	Factor			
Item	1	2	3	4
MAAS 2	0.57			
MAAS 3	0.68			
MAAS 11	0.44			
MAAS 12	0.46			
MAAS 13	0.63			
MAAS 15	0.69			
MAAS 4		-0.68		
MAAS 7		-0.77		
MAAS 8		-0.74		
MAAS 10		-0.64		
MAAS 14		-0.53		
MAAS 1			0.74	
MAAS 5			0.72	
MAAS 6				0.76
MAAS 9				-0.56

Note. $|\lambda| > 0.35$

Transcendent Ontological Worldview Inventories. The Gerotranscendence Scale – Revised (GS-R) was first intended for use with the elderly, and this likely contributed to the largely different factorization of the inventory in this study. When applied to those older individuals, Atchley (1999) found that the test reduced to three dimensions, but this data set produced 10 dimensions, shown in Table 4.4, which explained 65.2% of variance. Even when conducting an EFA on only the original 10 cosmic transcendence items, four factors were produced.

Table 4.4. GS-R Factor Loadings

	Factor									
Item	1	2	3	4	5	6	7	8	9	10
GSR 3	0.78									
GSR 4	0.81									
GSR 11	0.60									
GSR 12(R)	0.37		-0.38							
GSR 2		0.72								
GSR 7(R)		0.69								
GSR 14(R)		0.62								-0.42
GSR 10								0.35		
GSR 8			0.64							
GSR 9	0.36		0.65							
GSR 19			0.38							
GSR 13(R)				0.48						
GSR 17				0.58						
GSR 18(R)				0.80						
GSR 15					0.72					
GSR 21				-0.42	0.46					
GSR 23(R)					0.61	0.49				
GSR 5R		0.40				0.46				
GSR 25(R)						0.83				
GSR 20(R)							0.74			
GSR 22(R)							0.82			
GSR 1								0.64		
GSR 6								0.80		
GSR 16									-0.87	
GSR 24(R)										-0.87

Note. $|\lambda| > 0.35$

This sizable discrepancy in structure continued onto the next transcendence measures as well. The Adult Self-Transcendence Inventory (ASTI) was initially reported to consist of one transcendence dimension, and one comparative dimension of alienation. Collectively, the EFA explained 61.9% of the variance in a six-factor solution for this student sample as can be seen in Table 4.5. Further, excluding the alienation items and examining only the transcendence items (10 items), like the GS-R, resulted in a four-factor solution.

Table 4.5. ASTI Factor Loadings

	Factor					
Item	1	2	3	4	5	6
ASTI 3	0.47					
ASTI 4(R)	0.64				-0.38	
ASTI 8(R)	0.64					
ASTI 10(R)	0.77					
ASTI 15	0.39					
ASTI 13	-0.35	0.73				
ASTI 16	0.46	0.66				
ASTI 18		0.45	-0.35		-0.45	
ASTI 7			-0.57			-0.40
ASTI 12			-0.88			
ASTI 14(R)			-0.62			
ASTI 1				0.60		
ASTI 11				0.72		
ASTI 17				0.54	0.43	
ASTI 2					-0.80	
ASTI 9(R)					-0.50	
ASTI 5						-0.83
ASTI 6					-0.38	-0.63

Note. $|\lambda| > 0.35$

Finally, the Self-Transcendence Scale (STS) inventory fared slightly better when an EFA was performed. Haugan et al. (2012) found that the STS demonstrated the best goodness-of-fit when loaded onto a four-factor solution, as compared with a two-factor. However, there were a number of items which showed non-negligible cross-loading, even though this was the best solution tested. For this study's sample, a four-factor solution was also produced during EFA explaining 56.7% of the variance, although, item loadings were not consistent with previous research, even when allowing for cross-loading. This solution is shown in Table 4.6.

Table 4.6. STS Factor Loadings

Item	1	2	3	4
STS1	0.65			
STS2	0.65			
STS4	0.72			
STS5	0.51			0.40
STS3		0.67		
STS6		0.78		
STS8		0.80		
STS9		0.51		
STS10			0.56	
STS13			0.75	
STS14	0.50		0.55	
STS15			0.85	
STS7		0.37		0.61
STS11			0.42	0.66
STS12		0.36		0.39

Note. $|\lambda| > 0.35$

Additional Outcome Inventories. As described previously, Spreng et al. (2009) developed the Toronto Empathy Questionnaire (TEQ) with a unidimensional factor structure in mind, and argued that regardless of the EFA results, the scale should be forced into a single factor due to validity concerns. However, they also noted that the scale derives closely from the Interpersonal Reactivity Index (IRI, Davis, 1980), which holds a four-factor structure. Applied to these adolescents, the TEQ produced a similar four-factor solution to that of the IRI, explaining 59.0% of the variance, but the unidimensional solution was also explored, with 35.1% of the variance explained. These two possibilities are reported in Table 4.7. The Cronbach alpha for the overall TEQ was α=0.867. Despite some low loadings for items seven, eight, and nine, the high internal consistency can be used as justification for maintaining the unidimensional structure. This single measure was only used for correlative comparison with model variables in order to assess empathy as an outcome of the development process, and not included in the model itself.

Table 4.7. TEQ Factor Structure Comparison

	Four-Factor Solution				Single-Factor Solution
Item	1	2	3	4	1
TEQ 2(R)	0.70				0.53
TEQ 6	0.61				0.66
TEQ 10(R)	0.84				0.55
TEQ 12(R)	0.51				0.73
TEQ 14(R)	0.52				0.69
TEQ 16	0.38				0.64
TEQ 3	0.37	0.39			0.78
TEQ 5		0.46			0.72
TEQ 7(R)		0.77			0.37
TEQ 11(R)		0.55			0.65
TEQ 13	0.41	0.58			0.73
TEQ 15(R)		0.55	0.39		0.56
TEQ 1			0.85		0.45
TEQ 4(R)			0.72		0.50
TEQ 8				0.91	0.32
TEQ 9				0.83	0.34

Note. $|\lambda| > 0.35$ for 4-factor solution

Unfortunately, a major oversight occurred with respect to the second outcome variable measured, narcissism. The original inventory consisted of 40 items, but the format that was submitted to the Internal Review Board cut off the last 14 items, and the error unknowingly propagated forward onto the packets given to participants. Responses were only gathered for the first 26 items as a result of this error. Nevertheless, an attempt was made to salvage some meaning for the items that were collected. The factor structure that was originally reported for this metric included seven dimensions (Raskin & Terry, 1988). Performing an EFA on this limited set produced an eight-factor solution shown in Table 4.8, and items did not coalescence around similar factors as the initial factorization. As a result, a more in-depth analysis of the data was needed to extract meaningful dimensions, and will be discussed later in this chapter.

Table 4.8. NPI Factor Loadings

	Factor							
Item	1	2	3	4	5	6	7	8
NPI 1	0.67							
NPI 8	0.64							
NPI 10(R)	0.45							
NPI 11	0.44						0.44	
NPI 12	0.51							
NPI 16	0.68							
NPI 7R		0.52						
NPI 15(R)		0.80						
NPI 19(R)		0.70						
NPI 20(R)		0.54						
NPI 6			0.71					
NPI 13			0.64			0.40		
NPI 23(R)			0.58					
NPI 9(R)				-0.66				
NPI 18				0.70				
NPI 21				-0.37				
NPI 3					-0.36			
NPI 14					0.71			
NPI 22(R)					-0.41			
NPI 5R						0.43		0.36
NPI 24						0.59		
NPI 25						0.73		
NPI 2							0.51	
NPI 4(R)							0.68	
NPI 26(R)							0.65	
NPI 17								-0.86

Note. $|\lambda| > 0.35$

Summary of Inventory Results. This initial step in establishing a model for research question one produced some interesting results, worth reiterating here. The only inventory which was fully analyzed to understand the meaning of its factor structure was the AI metric for the IVO construct. This was the only inventory which was meant to directly measure a construct in the theoretical model. It was unclear which factors would ultimately contribute to the final model, therefore it was necessary to gain an understanding of how these adolescents interpreted the inventory items. Several of the dimensions aligned in accordance with literature, such as community feeling and social recognition, while others mixed to create new dimensions like external validation. The factor structure identified for this cohort, along with original factor structure, will be considered for use in the final model.

The remaining inventory measures for THO and TOW were not analyzed to interpret the meaning of their factor structures, and instead were examined to ascertain the degree to which they conformed with those reported in the literature. The CAMS-R matched the original factor structure for the items available. Unfortunately, two items related to the present focus dimension were missing, therefore that factor could not be evaluated. Conversely, the MAAS inventory demonstrated a four-factor solution for this sample, but was originally reported as unidimensional. This indicated that the adolescent population in Hawai'i interpreted the questions with considerable difference compared to those used in the initial inventory validation. A similar reinterpretation was noted for the two TOW inventories of ASTI and GS-R, though an examination of these new dimensions was not undertaken as it did not relate to the research question.

Finally, the two outcome inventories which measured empathy (TEQ) and narcissism (NPI) were also analyzed to examine the degree to which their factor structure aligned to those previously reported. The TEQ demonstrated a similar behavior to that of the original factor structure. That is, a four-factor solution occurred with factors that had eigenvalues above 1.0. However, the Raskin and Terry (1988) argued that forcing a unidimensional structure was statistically acceptable, and offered a more valid interpretation. This adolescent population appeared to conform to that assertion, as a single-factor solution fit the data fairly well. Unfortunately, 14 of the 40 items from the NPI were mistakenly excluded from the inventory packet, and as such comparison to the original factor structure was not possible. EFA produced an eight-factor solution for the available 26 items. An attempt will be made in the next section to salvage the data from the inventory, and obtain a set of factors which provide some meaningful information to evaluate outcomes.

Identifying Factors. It was initially hoped that a factor subscale or set of subscales from inventories could be directly used for the latent variables in the proposed model. Unfortunately, this was not possible for two reasons. The first of these was already discussed in the previous section, which was that the original factor structure for most inventories did not hold with this population, and EFA was required to ascertain more appropriate loadings. Secondly, this model is attempting to address the developmental process which leads to a transcendent worldview. However, all previous research into measuring this perspective has only attempted to determine the degree to which individuals experience transcendence, and not a dissected process. This led to all items that indicated a transcendent worldview to be collectively grouped into a single measurement, when they may actually be measurements of precursors in a development process. For example, GSR Item 24 ("For me, having a

high material standard is among the most important things in my life right now"), and ASTI Item 16 ("Material things mean less to me") do find significant correlations and loadings within their respective inventories since they help engender a transcendent ontology. Though, once this worldview is broken down into its developmentally constituent factors, these items move to earlier elements in the process by reason of maintaining the validity of the theory. Therefore, both of these example items are more related to an individual's intrinsic and extrinsic sources of self-esteem, rather than transcendence.

As a result of these items being convolved and the original factor structures not holding, new item factorizations were required to determine the best fit for the proposed model. To resolve the appropriate items for each factor in the model, the following general method was used:

1. Identify critical items that directly conform to the operationalized definition of constructs used during the model development.
2. Explore correlations using these critical items with all other items within the same variable inventories. Retain items that show strong and significant correlations with the critical items.
3. Qualitatively assess items and factors to ensure convergent validity, so that all relate directly to the measurement of the operationalized construct. Discard those items and factors that do not conform.
4. Qualitatively assess items to ensure discriminant validity, so that none belong to a different construct in the development model. Discard those items that do conform to another construct.
5. Perform EFA on remaining items to determine factor structure.
6. Iterate process as necessary back to step three (first qualitative assessment), to examine different variants, and exclusion and inclusion criteria. This ensures that the solution space is fully explored leaving the most stable and valid set of factors.

Once this process was complete and there appeared to be a stable and valid factor, a final examination of its structure was accomplished through a Confirmatory Factor Analysis (CFA) to ensure a good fit. Since these factors would later be incorporated into a larger SEM for the entire development process, it was prudent that verify that the factor by itself produced good fit numbers. For the reader's reference, generally accepted CFA cutoff scores for goodness-of-fit are provided. For the metrics used in this

analysis goodness of fit cutoffs are: χ^2 => (p > 0.05), GFI > 0.90, AFGI > 0.90, CFI > 0.90, RMSEA < 0.05, and PCLOSE > 0.05 (Kline, 2005; Schumacker & Lomax, 2010).

The Transcendent Ontological Worldview Factor. Three critical items for the TOW variable were identified as being directly related to its operationalized definition. These were GSR3, GSR4, and ASTI2. Using these three items, a list of 13 other significantly correlated and conceptually related items was created from the three transcendence inventories in the study. It should be noted that the criteria for "conceptually related" was applied somewhat liberally, to maximize the breadth of exploration when identifying items. This constituted 24% of the possible items from all transcendence measures. Once these were determined, an EFA was performed with the 16 items and rotated using Oblimin rotation. The result of this analysis showed a four-factor solution, with these loadings shown in Table 4.9. The operationalized construct of TOW is, by definition, unidimensional. That is, it exists on a single spectrum from an extreme of total separateness to total oneness. Other orthogonal factors are inherently excluded. That is not to say that these orthogonal items have no function in the theory, indeed, they reappear later in the analysis. They simply are not part of the direct measurement of TOW. This assertion was supported by EFA eigenvalues as well. Whereas the four factors shown in table 4.9 were all above an eigenvalue cutoff of 1.0, there was a substantial drop from the first to second factor. The first factor's eigenvalue was 4.76, while subsequent factors fell to only 1.50, 1.28, and 1.23, which served to emphasize the importance of that first critical factor over others. Removing those items which loaded orthogonally to the primary factor left only five items:

GSR3: I feel a part of the entire universe
GSR4: I feel that I am a part of everything alive
GSR11: The life I have lived has coherence and meaning
ASTI2: I feel that my individual life is part of a greater whole
STS12: Finding meaning in my spiritual life

A final factor analysis using only these five items, yielded a single factor with eigenvalue = 2.45, explaining 49.0% of the variance, and α = 0.729, with loadings GSR 3 (0.74), GSR 4 (0.76), GSR 11 (0.70), ASTI 2 (0.66), and STS 12 (0.64). These items now constitute the TOW Factor (TOW-F), and will be used in most further analyses of the data. To validate this measure a CFA was conducted using the five items. Results showed a goodness-of-fit of χ^2 =6.8 (p=0.238), GFI=0.983, AFGI=0.948, CFI=0.988, RMSEA=0.046, and PCLOSE=0.451. Further all regression weights had a significance of less than 0.001, and all standard

error significances less than 0.002. With goodness-of-fit metrics and *p*-values showing good measures, this factor can be used for the final model.

Table 4.9. TOW Factor Item Analysis

	Factor			
Item	1	2	3	4
GSR 3	0.82			
GSR 4	0.86			
GSR 11	0.51			
ASTI 2	0.50			
STS 12	0.52			
ASTI 3		0.84		
ASTI 7		0.74		
ASTI 15		0.60		
ASTI 18		0.40	0.39	0.38
STS 2		0.40		
STS 4			-0.51	0.49
GSR 12(R)			-0.69	
ASTI 6		0.37	0.45	
STS 14			-0.54	
STS 8				0.74
STS 9				0.77

Note. $|\lambda| > 0.35$

Intrinsic Value Orientation. The ultimate goal of using the AI instrument designed by Kasser and Ryan (1996), was that it is the most closely associated metric to the construct of extrinsic and intrinsic self-esteem, and it was predominantly used by the other researchers whose studies this study was built upon. This research was endeavoring to determine how individuals attempt to make themselves feel that their life has value, i.e. global self-esteem. However, as discussed in chapter two, the practical ways in which people go about giving their life meaning is not a direct correlate to what those people value. These are likely to be strongly correlated, but not for all types of values. The desire for self-acceptance may indeed be a strong intrinsic value, but it does not readily represent a method of achieving high self-esteem. That is, it is difficult to conceive of a practical activity which grants an individual self-esteem through self-acceptance. In contrast, it is relatively easy to imagine numerous activities which grant self-esteem through intrinsic community engagement or extrinsic social recognition. In addition, self-acceptance is conceptually more indicative of an end-state or outcome of a process, rather than a continuously ongoing part of a process. Since this research is concerned with temporal movement through transcendence development, this factor is not well suited. Indeed, this issue of self-acceptance

as end-state versus process reappears later, both when redefining model variables and with qualitative interviews, therefore, this is not merely a pedantic argument but a repeated emergent concern within the data. For these reasons, extracting meaningful results from this measure for use in the model was more difficult than other measures.

Examining the AI subscale correlations with the TOW-F measure established above revealed an unexpected outcome. The TOW-F variable demonstrated no significant correlation with the three original extrinsic value subscales of social recognition, attractive appearance, and financial success, nor with any of the refactored extrinsic subscales. Conversely, the purely intrinsic subscales of self-acceptance (r=0.35), community feeling (r=0.36), affiliation (r=0.32), and wholeness (r=0.39) did show significant correlations. However, the refactored dimension of social freedom showed virtually no correlation, likely since it involves a combination of items originally from both intrinsic and extrinsic measures. Further, physical fitness in both original (r=0.20) and refactored (r=0.22) subscales did show a significant correlation but was not as strong, again because fitness may not be a purely intrinsic or extrinsic value. The motivations which drive the valuation of fitness, may be due to either a desire for external attention or personal health which can cause it to have mixed results similar to social freedom.

For inclusion in the model, all subscales were considered regardless of whether they derived from the original factorization, or the ones unique to this sample. Based on the correlations with the TOW-F variable, it was decided to only use subscales for the model which satisfied three criteria. 1) The correlations were significant, 2) The subscales can be clearly defined as extrinsic or intrinsic in nature, and 3) The values-based subscale relates directly with some method of achieving self-esteem. The first criteria eliminated all purely extrinsic subscales, leaving only self-acceptance, community feeling, affiliation, wholeness, as well as both physical fitness factors, but these last two were then removed due to the second criteria. Finally, self-acceptance was rejected for the reasons discussed above stating that it does not directly associate with a method of achieving self-esteem, and is outcome rather than process centered.

This process left only three possible subscales, community, affiliation, and wholeness. It should be remembered that the refactorization merely added two items to the original affiliation factor to create the wholeness subscale. In effect, there was only two potential subscales remaining, but this left the question of whether to include the added items from the wholeness factor. Wholeness did show a stronger correlation with TOW-F than with affiliation, but the cause of this needed to be examined

further to make an accurate determination. The two items under review were "At the end of your life, you will look back on your life as meaningful and complete," and "You will know and accept who you really are." The first of these two bears a strong resemblance to the TOW-F item "The life I have lived has coherence and meaning." Again here, it appears that there is a convolution of constructs, and to ensure discriminant validity the item needed to be eliminated. The second item directly relates to acceptance of self, originally deriving from that subscale, which was already removed as a potential candidate due to its lack of connection with the practicalities of maintaining self-esteem. Therefore, community and affiliation were the only surviving subscales, both intrinsic measures. Performing an EFA collectively on these two factors yielded the expected two-factor solution with community feeling eigenvalue = 4.71 and affiliation eigenvalue = 2.03, and explaining a total of 67.4% of the variance. Component analysis of these two sets of items demonstrated tight clustering, which all fell close to their respective Oblimin rotated axes.

For the final stage of determining this factor structure, as with the TOW-F construct, a CFA was conducted to ensure that the latent factor alone showed goodness-of-fit before attempting to insert it into the final model. This IVO CFA, which included both subscales, produced goodness-of-fit measures: χ^2 =54.3 (*p*=0.009), RMR=0.033, GFI=0.937, AGFI=0.898, CFI=0.974, RMSEA=0.063, and PCLOSE=0.221. Whereas RMR, GFI, CFI, and PCLOSE were beyond their respective acceptable thresholds, χ^2 significance, AGFI, and RMSEA were not, and some adjustment was necessary. Modification Indices revealed a high amount of unexplained error covariance between two items under community feeling (AI16 & AI21), which left two possible remedies. Either allow their residuals to covary, or eliminate one of the items. As Hermida (2015) explains, allowing correlated errors must be well justified within one's theoretical context, otherwise it should not be done. He also examined how researchers too often allow correlated errors without good reason other than to improve goodness-of-fit. Therefore, to maintain a high analytic standard, and not add to the issue of unjustified error correlation, one of the two items was eliminated. Removing item AI21 showed a greater reduction in χ^2, and overall better goodness-of-fit. Note that this was also verified in the final model, where AI21 demonstrated considerable unexplained covariance with multiple other variables across constructs. For this IVO CFA, the adjusted goodness-of-fit metrics were χ^2=34.3 *p*=0.129), RMR=0.030, GFI=0.957, AGFI=0.925, CFI=0.988, RMSEA=0.044, and PCLOSE=0.572. Additionally, regression weights, standard errors, and subscale covariances all showed *p*-values less than 0.001. With this removal, all metrics show a good fit, and the variable measure was complete. IVO is

comprised of two subscales, with five items loading onto affiliation (α = 0.838), and four times loading onto community feeling (α = 0.877). The overall reliability for the IVO construct was α = 0.852.

The Time Horizon Orientation. In establishing the THO subscale factors, multiple inventories were considered for meaningful measures. These included the original two mindfulness measures CAMS-R and MAAS, but also items from the three transcendence measures GS-R, ASTI, and STS. Within the MAAS inventory, both primary factors of attention & awareness and present focus demonstrated a weak significant correlation with the TOW-F. Further, as noted in Table 4.10 only attention & awareness displayed any correlation with IVO factors of community feeling and affiliation, which were also weak. Given these weak relationships it was unlikely that the MAAS scale would provide meaningful contribution to the THO variable. However, items were included in possible combined factors with other inventories. In contrast to the MAAS dimensions, the CAMS-R inventory provided substantial correlations with other factors, which is also shown in Table 4.10. All subscales demonstrated moderate to strongly significant correlations with the TOW-F variable with at least 0.21. In regard to IVO correlations, only acceptance showed a significant relationship with community feeling, and only awareness with affiliation. It was interesting that neither attention nor present focus correlated with either intrinsic value, as this was not an expected result. Nevertheless, for determining relevant THO factors, only those three subscales which connected with at least one IVO dimension and the TOW-F variables were retained for consideration.

Table 4.10. Correlations Among Potential THO Subscales

	CAMS-R			MAAS	
Factor	Acceptence	Attention	Awareness	Attention Awareness	Present Focus
TOW-Factor	0.23	0.21	0.40	-0.16	-0.19
IVO-Community	0.15	-0.03	0.12	-0.19	-0.04
IVO Affliation	0.02	0.07	0.27	-0.16	-0.03

Note: p=0.05 occurs at r=0.127 for one-tailed

Following this identification, an EFA was conducted using each of the three remaining subscale items from the CAMS-R acceptance and awareness dimensions, along with the MAAS attention & awareness dimension. It was hoped that these items might have intermixed loading across inventories, thereby, potentially improving the correlation strength. Unfortunately, as seen in Table 4.11, this did not occur and the inventory items loaded separately. As a result of this analysis, both the CAMS-R

dimensions were carried forward, but the MAAS dimension was eliminated due to its significant, but comparatively weak correlations with TOW-F.

Table 4.11. THO Subscale Factor Analysis

Item	CAMS-R		MAAS
	Acceptance	Awareness	Attention Awareness
CAMSR 2	0.80		
CAMSR 3	0.83		
CAMSR 8	0.50	0.42	
CAMSR 4		0.81	
CAMSR 6		0.80	
CAMSR 7		0.57	
MAAS 2			0.68
MAAS 3			0.67
MAAS 11			0.62
MAAS 13			0.43
MAAS 15			0.71

Note. $|\lambda| > 0.35$

Finally, as previously discussed, the TOW construct is by definition unidimensional, which inherently limited the use of some relevant items that loaded onto alternate factors from the critical TOW items. Further, it was essential to separate items among the three variables of interest to avoid conceptual overlapping, which could artificially inflate correlations. A number of items were identified among the transcendence inventories which may have been better suited for other variables in the development model. Five items from the transcendence measures clearly demonstrated a conceptual relationship with time horizon, and were assessed for consideration within the THO variable. Those items were:

STS 1: Having hobbies and interests I can enjoy

STS 2: Accepting myself as I grow older

STS 4: Adjusting well to my present life situation

STS 14: Enjoying my pace of life

ASTI 5: I am more focused on the present

These five items loaded onto a single factor with eigenvalue = 2.30, explaining 47.7% of the total variance, and factor loadings STS 1 (0.69), STS 2 (0.76), STS 4 (0.74), STS 14 (0.71), and ASTI 5 (0.53). Note that ASTI 5 has a much lower factor loading compared to the other four items, which is not unsurprising given that it is the only item taken from a different inventory. However, this loading was not low enough to justify exclusion by itself, but it additionally did not fit with the emergent commonality among the other items, and was eliminated. The inclusion criteria applied to the other THO dimensions above, was also applied to this factor as well. Namely, that it must correlate with both the TOW-F variable moderately, and at least one IVO dimension, to which this scale accomplishes handily. The factor shows significant correlations with TOW-F (0.43), community feeling (0.31), and affiliation (0.39). Collectively, the remaining four items point toward a factor which is describing one's level of Self-Understanding (SU), and the dimension given this title, constituting the third factor for consideration in the THO variable with reliability $\alpha = 0.722$. It may also be helpful to clarify the other two dimensions from the CAMS-R that were included, acceptance and awareness. The three questions that comprise the acceptance factor all related, not to the external world, but rather inward toward an emotional acceptance. As such, this THO dimension was recast as Emotional Self-Acceptance (ESA) with reliability $\alpha = 0.678$. Additionally, for consistency and emphasis, awareness was relabeled Self-Awareness (SA) with reliability $\alpha = 0.621$. The composite THO alpha reliability for all three subscales was $\alpha = 0.782$.

To explore these three THO subscales more fully, an EFA was performed to ensure that the factor structure maintained itself when all items were combined, shown in Table 4.12. The three factors were able to explain 59.6% of the variance, with eigenvalues of 3.45, 1.34, and 1.17 for SU, ESA, and SA, respectively. As a final validation, a CFA was conducted to examine goodness-of-fit for this three factor THO variable. The model produced acceptable, though not outstanding fit measures for all metrics χ^2=44.333 (*p*=0.072), RMR=0.044, GFI=0.947, AGFI=0.909, CFI=0.963, RMSEA=0.048, and PCLOSE=0.505. Again, regression weights, covariances, and variances all showed significances of less than .001 as well. This represents adequate fit to proceed forward into the final model with these three factors as the initial THO variable measure.

Table 4.12. THO Three-Dimensional Factor Loadings

Item	SU	ESA	SA
STS 1	0.78		
STS 2	0.75		
STS 4	0.74		
STS 14	0.66		
CAMSR 2		-0.81	
CAMSR 3		-0.79	
CAMSR 8		-0.55	0.42
CAMSR 4			0.80
CAMSR 6			0.79
CAMSR 7			0.53

Note. $|\lambda| > 0.35$

Before moving on, it is important to draw attention to an important quality of this newly constructed THO factor; there are no items which relate time or being in the present moment. Reflecting upon this brings to question whether the latent variable under investigation is time horizon at all, or some other relevant construct. Indeed, THO no longer represents these subscales, and a redefinition of the latent construct is necessary. However, a clear picture of what this construct ought to be did not fully emerge until the qualitative interviews were conducted. This new latent variable is cast as Self-Engagement (SE), which encapsulates an individual's ability to openly, non-judgmentally, and objectively engage with themselves toward self-investigation and self-enhancement. A full exploration of this construct's elucidation in the context of other model variables (including THO) will be accomplished later in this chapter and chapter five. For the current analysis, simply note that the latent variable of THO is replaced by SE.

Summary of Model Factor Construction. In the above section six dimensions were established which related to IVO, THO, and TOW. By definition, TOW is considered a unidimensional construct, and as such only one factor was allowed for this latent variable. Five items were identified in this factor and all of these were conceptually associated with transcendence and a perception of interconnectedness or oneness. Other tangentially associated items may be better encapsulated in different constructs along the developmental path to ensure discriminant validity.

Interestingly, IVO demonstrated no extrinsic correlations with the established five-item TOW factor. The original AI instrument was comprised of seven dimensions, three intrinsic, three extrinsic, one mixed factor. All three intrinsic factors showed good correlation with TOW, but none of the

extrinsic factors appeared to correlate. It was expected that these factors would be negatively correlated with TOW, rather than the observed neutral relationship. Of the three intrinsic factors, only two were retained for use in the model, community feeling and affiliations. The third, self-acceptance, did not relate to a practical method of achieving self-esteem.

The present-focused construct of THO was established by exploring correlations among the pre-existing factor of the CAMS-R metric and the MAAS inventory, and the established model factors for TOW and IVO. Of the five dimensions examined across both inventories, only three demonstrated correlations with the other two model constructs. Items across these inventory factors were highly similar, and it was hoped that some cross loading would occur, however, none appeared during EFA. As such the factor with the weakest correlations was eliminated. This left only two factors for THO, both deriving from the CAMS-R inventory with MAAS factors unused. A possible reason for the poor performance of the MAAS measure may have been the result of its negative orientation. That is, it was the only inventory in the study which phrased its questions negatively instead of positively. Nevertheless, a third factor was added from items derived from the STS inventory. These items were not related to TOW as defined here, and instead were better explained by the THO variable. As such, these items were included, and all loaded onto a single factor. Upon examination of items rejected during this process, it was noted that those which directly assessed present-time orientation were among those excluded. This outcome brought into question whether the established factor dimensions were really measuring the THO construct, or some other latent variable. As such, this construct was redefined as "self-engagement."

Additional Non-Model Factorizations. In addition to establishing factors for use within the model, five other relevant scales were built from the data; death acceptance, transcendence outcomes, family education, social dominance, and social confidence. These were meant to be simple metrics to compare against model constructs, and therefore were intentionally limited to be unidimensional. Death Acceptance was created by collecting all items across inventories that asked in some way about death. In total, this was only four items from two different measures:

GSR 2: Knowing that life on earth will continue after my death is more important than my individual life

GSR 5 (R): I am afraid of death

GSR 7 (R): It seems unfair that I must die

STS 11: Accepting death as a part of life

All four of these items loaded onto a single factor explaining 46.9% of variance with reliability $\alpha = 0.620$, and factor loadings GSR 2(0.65), GSR 5R (0.67), GSR 7R (0.74), and STS 11(0.68). A CFA demonstrated an excellent fit for the dimension with χ^2=0.200 (df=2, *p*=0.907), RMR=0.007, GFI=0.999, AGFI=0.997, CFI=1.000, RMSEA=0.000, and PCLOSE=0.937. Collectively this factor was intended to examine if death acceptance bares any correlative relationship with any scales included in the model, and will be discussed in more detail later in this chapter.

The second non-model factor came exclusively from the ASTI inventory. Whereas this scale showed poor goodness-of-fit for its original structure, after removing ASTI 2 and ASTI 5 used in other dimensions, most of the remaining items loaded strongly onto a single primary factor. These items were not well suited for inclusion in the TOW-F variable, but did suggest some noteworthy outcomes meriting examination. Items for this factor were:

ASTI 3: I have become less concerned about other people's opinions of me

ASTI 4 (R): I feel that life has less meaning

ASTI 8 (R): I feel more isolated and lonely

ASTI 9 (R): I am less interested in seeking out social contacts

ASTI 10 (R): My sense of self has decreased as I have gotten older

ASTI 15: I find more joy in life

ASTI 17 (R): I am less optimistic about the future of humanity

This group of items demonstrate the potential power of developing a transcendent ontology, as these items are related to one's overall attitude, perspective, and behavior toward engaging with life. Therefore, this factor was labeled transcendence outcomes. During EFA the factor loadings explained 44.3% of variance and reliability $\alpha = 0.781$, with loadings ASTI 3(0.56), ASTI 4(0.72), ASTI 8R(0.72), ASTI 9R(0.62), ASTI 10R(0.75), ASTI 15(0.77), and ASTI 17R(0.48). Goodness-of-fit for this factor was quite good with χ^2=10.62 (df=14, *p*=0.716), RMR=0.026, GFI=0.982, AGFI=0.963, CFI=1.000, RMSEA=0.000, and PCLOSE=0.922, which is more than acceptable.

The next factor did not originate with any of the inventories used for the research, but instead derived from three questions included on the demographics survey. These three items were not intended for a single latent factor measure, but once the strong correlation that all three had with model dimensions were noted, a dimensional reduction was worthwhile. Conceptually, all three questions were closely related and directly asked the participants about their family education related to the model variables of IVO, SE, and TOW-F. These questions were:

D 12: How well do you feel your home life and family education encouraged you to develop your own unique sense of self?

D 13: How well do you feel your home life and family education encouraged you to live in the present moment and focus on the positive moments of the day?

D 14: How well do you feel your home life and family education encouraged you to develop a greater sense of personal connection with the world as a whole?

These three questions loaded strongly onto a single factor, explaining 70.9% of the variance and reliability 0.792, with factor loadings D 12(0.80), D 13(0.89), and D 14(0.84). It was not possible to obtain fit statistics for this three-item factor, as χ^2 was close to zero and the Amos program was unable to produce fit measures. The extremely low χ^2 does at least suggest a good fit for this dimension, even if other metrics were unavailable. To generally reference this factor, it was titled Family Education.

The final two additional factors derived from an attempt to extract meaningful data from the NPI inventory. As previously mentioned, not all inventory items were included in the participant surveys, and this contributed to a poor factor structure and goodness-of-fit. To at least partially remedy this, individual items were examined for correlation with the TOW-F variable. In total eight items were identified with four showing positive correlation, and four showing negative correlation. EFA on these eight items produce a two-factor solution, which were deemed social dominance ($\alpha = 0.528$) and social confidence ($\alpha = 0.516$). It should be noted that whereas it is mathematically acceptable to use the Cronsbach's alpha with binary data, there is still conjecture as to whether the measure is providing a reliable estimator of internal consistency from which to draw conclusions (Raykov, Dimitrov, & Asparouhov, 2010). Therefore, the low alpha reliabilities seen in these two factors, may not be indicative of the true scale reliabilities. Social dominance refers to an individual's tendency toward controlling and manipulating others in order to serve their own self-interest, which was negatively

correlated with TOW-F (-0.27). Conversely, social confidence was positively correlated with TOW-F (0.24), and relates to an individual's confidence to engage with others and pursue goals. These eight items are listed in Table 4.13, along with their factor loadings. There was no attempt to claim that these two dimensions are subscales of some overarching construct, therefore, the factor loadings reported are of each factor separately. Discrete CFA performed on each factor showed social dominance with χ^2=1.06 (df=2, *p*=0.589), NFI= 0.975, CFI=1.000, RMSEA=0.000, and PCLOSE=0.700, while social confidence reported χ^2=0.09 (df=2, *p*=0.954), NFI= 0.998, CFI=1.000, RMSEA=0.000, and PCLOSE=0.969. These indicate a good fit for both factors. Note that due to the inventory's dichotomous scoring system, it was not possible to report RMR, GFI, and AGFI statistics. Instead, NFI was included for fidelity.

Table 4.13. Factor Analysis of NPI-TOW Correlations

Item	Inventory Options		Factor Loading	
	A	B	Social Confidence	Social Dominance
NPI 7	I prefer to blend in with the crowd	I like to be the center of attention	0.69	
NPI 8	I will be a success	I am not too concerned about success	0.48	
NPI 10	I am not sure if I would make a good leader	I see myself as a good leader	0.73	
NPI 26	Compliments embarrass me	I like to be complimented	0.62	
NPI 5	The thought of ruling the world frightens the hell	If I ruled the world it would be a better place		0.50
NPI 13	I find it easy to manipulate people	I don't like it when I find myself manipulating		0.61
NPI 24	I expect a great deal from other people	I like to do things for other people		0.68
NPI 25	I will never be satisfied until I get all that I	I take my satisfactions as they come		0.74

Note. $|\lambda| > 0.35$

Summary of Non-Model Factor Construction. To assess the impact that the transcendence development model may have had on other aspects of the participants, five non-model factors were established to measure these outcomes; death acceptance, transcendence outcomes, family education, social dominance, and social confidence. The family education factor derived from three items included on the demographic survey. These items were not initially intended to be used as elements of a factor,

but the high correlation among the three, as well as correlation with model construction made it a worthwhile metric. Indeed, this one factor demonstrated the highest overall correlations with model constructs as compared to any other variable. The causal direction of these correlations was most likely that, strong family education and support toward transcendence enables greater experience of TOW. Family education represents the only known prediction factor out of the five established. The other four factors were assumed as outcome variables. It is not possible to confidently establish this causal direction here, if one exists at all, but these four outcome measures were assumed to be the result of transcendence development rather than the reverse.

Final Model Fit. To determine the best fit item inclusion and path flow for the final model, all three latent variables were connected in a path CFA in accordance the initial theory, as shown in Figure 4.2. This model was necessarily complex in order to properly align with theory and to incorporate the factor structures identified in the previous section. However, the sample size for the analysis was comparatively low the complexity. There are a number of generalized rules for determining appropriate sample size that include 5-10 observations per estimated parameter (Bentler & Chou, 1987), 10 observations per variable (Nunnally, 1967), or static rules such as 100-200 regardless of complexity (Boomsma, 1985). These guidelines put the data in this study either just within minimum acceptable bounds, or under-sampled, however, with the complexity of model it is likely under-sampled. Nevertheless, it was fruitful to examine goodness-of-fit for this data, as a number of recent article have address the use of small size in SEM analysis (Bentler & Yuan, 1999; Jung, 2013; Nevitt & Hancock, 2004; Sideridis, Simos, Papanicolaou, & Fletcher, 2014). Each of these authors provided methods for testing and validating small sample models, and demonstrated that meaningful and confident conclusions can be drawn about the model. That is, the information exists within the data, and can be extracted. Whereas, these specialized approaches were not utilized in this analysis, they may not have been necessary to gain insight into the validity of the model. Model complexity plays a factor in determining sample size, but it is not the only consideration. In a discussion of the concerns of over-sampling Tanka (1987) stated that:

> In fitting latent-variable or any other kind of models, inferences are made from observed data to the model believed to be generating the observations. These inferences are dependent in large part on the degree to which the information available in the sample mirrors the information in the complete population. This in turn, dependents on the obtained sample size. To the extent

> that samples are large, more information is available and, therefore, more confidence can be expressed for the model as a reflection of the population process (p. 134).

Sample size undeniably effects confidence in population inferences, but so does alignment to theory in model specification. In other words, if a model is built upon a theory that is well grounded in content and explanative validity, then a small sample size may not lead to erroneous conclusions and should not be a deterrent to testing. The theories that this model was built upon have been well-established and validated over the decades, and this model represents a synthesizes and extension of those theoretical foundations. It is understood that such a synthesis and extension may not be valid, but will be assumed true for the purposes of this analysis. In the future, additional participant data may be incorporated, with will alleviate the need for this assumption.

To begin the SEM examination please note that for this first-run model, AI 21, previously removed from IVO Community Feeling was included to verify that it was a poorly performing item. The original theoretical expectation for the model was that both time horizon (now self-engagement) and intrinsic valuation directly contribute to one's transcendent ontology. Further, from previous experimental research, a causal relationship was shown to exist with time horizon manipulation inducing changes in intrinsic valuation (Cozzolino et al., 2004; 2009), and additionally conforms to theories of PTG (Tedeschi & Calhoun, 2004). It was unclear whether this relationship was also bidirectional, therefore, only the known causal direction was initially indicated in the model.

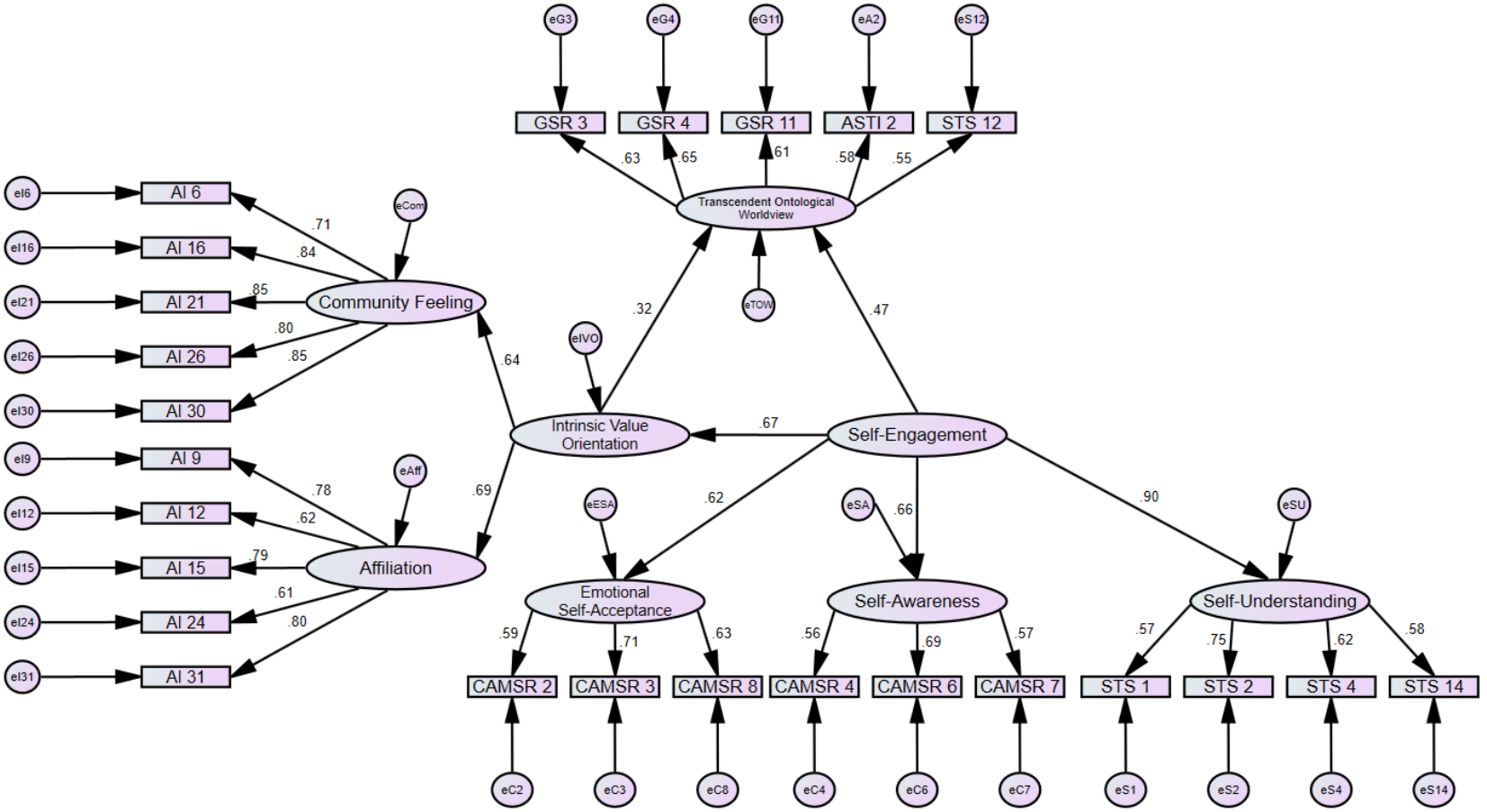

Figure 4.2. Originating Test Path Model

Examining the goodness-of-fit for this preliminary model resulted in mixed findings. χ^2=360.3 (df=267, p< 0.001), RMR=0.053, GFI=0.858, AGFI=0.827, CFI=0.937, RMSEA=0.046, and PCLOSE=0.706. For reference again, generally accepted goodness-of-fit scores are: χ^2 => (p > 0.05), GFI > 0.90, AFGI > 0.90, CFI > 0.90, RMSEA < 0.05, and PCLOSE > 0.05 (Kline, 2005; Schumacker & Lomax, 2010). For this initial fit testing RMSEA and PCLOSE showed good fit as they are residual-based metrics, and examine differences between predicted and observed covariances (Kline, 2005). The poorer fitting measures of CFI and GFI/AGFI are built on different criteria, which need to be addressed. In particular, CFI assumes that a baseline comparison model shares no correlation among observed variables (Hooper, Coughlan, & Mullen, 2008). This is a helpful measure, and indicates that this model may have too much correlation among some items, necessitating potential removal. Contrastingly, GFI/AGFI are not centered around a comparison to baseline, but rather directly explore the percentage of variance explained by the model. It should be noted that in latent variable path models such as this one, GFI/AGFI tend not to perform well, even when other metrics indicate a good fit (Hu & Bentler, 1998). Further, they are highly sensitive to sample size, and show a negative bias when the degrees of freedom exceed sample size (Sharma, Mukherjee, Kumar, & Dillon, 2005). Nevertheless, dismissing these metrics entirely is not wise and if some improvement could be accomplished, then it would help validate the model.

Modification Indices (MI) provided some insight into potential sources of high unexplained covariance within the model. In the Amos program, MI are reported for each item-to-item covariance relationship above a predefined threshold (default 4.0). To calculate the most accurate cumulative MI, the threshold was lowered to 0.01. For each variable in the model, its MI with all other variables was summed, which included both observed and latent variables. The total MI for this initial model was 611.0, and applying it to the 33 variables gave a mean of μ=37.1 and standard deviation of σ=10.9. As an evaluation criteria, those variables which displayed MI above 1.65σ (p=0.05) were reviewed. In total two observable variables and one latent variable were identified using this method. As expected, AI 21 was one of these variables with an MI of 60.4 (2.14σ). Unexpectedly, however, GSR 3 (a critical TOW item) indicated a considerable amount of unexplained covariance with a number of other variables with MI=56.8 (1.81σ). Of all MI contributions to GSR 3, the two largest sources were GSR 4, another critical TOW item on the same factor, and AI 21, which was only included to validate its exclusion. Given this, the item would not be removed until after other more impactful variables were addressed, and necessary path adjustments made. Finally, the latent variable of ESA demonstrated a high level of unexplained covariance at MI=57.4 (1.87σ). When contemplating the elimination of an entire latent

variable factor, it should not be taken lightly, nor should it be based solely on generating a better fit. It must be justified within the bounds of the theory and other data. A probable explanation for this apparent poor fit is ESA's relationship to the construct of self-acceptance as a whole. Given that self-acceptance is related to end-state rather than process, it is not unsurprising that ESA would also struggle to maintain itself within the development model. Indeed, "engagement" inherently connotates feelings of motion and action, whereas acceptance may not. Of course, engagement with the self and acceptance of the self are intimately connected, but they are distinct constructs whose connection will be discussed in greater detail once the qualitative data is introduced and reviewed. The combination of ESA having a high amount of unexplained covariance, along with the qualitative evidence from interview, justified the elimination of this factor and subsequently its three items from the final model. Recalculating the Cronbach alpha for SE, having removed ESA results in a slight drop to $\alpha = 0.723$.

Rerunning the path analysis with the elimination of AI 21 and ESA, produced better goodness-of-fit with χ^2=211.4 (df=182, *p*=0.067), RMR=0.042, GFI=0.896, AGFI=0.868, CFI=0.974, RMSEA=0.031, and PCLOSE=0.969. With this adjusted model all metrics show a good fit, except GFI/AGFI, which are still close to threshold. The degrees of freedom are still more than 9% greater than the sample size so this downward biasing of GFI/AGFI are to be expected (Sharma et al., 2005). Based solely on these goodness-of-fit numbers, this model could be accepted, however, there were still some concerns to reconcile. Firstly, the regression weighting between the latent variables of SE and TOW-F showed a 0.98 standardized correlation estimate with a significance of *p*=0.104, while the weighting between IVO and TOW-F was -0.20 with a significance of *p*=0.698. This likely meant only one of these two paths actually exists, and the SE-TOW-F path was favored over the IVO-TOW-F path. Both of these possibilities were explored, and retaining the IVO-TOW-F path resulted in a worse overall fit of χ^2=216.0 (df=183, *p*=0.048), while retaining SE-TOW-F path resulted in a slightly better significance of χ^2=211.6 (df=183, *p*=0.072). According to this path adjustment, only SE directly interacts with transcendence, however, this presented an enlightening but secondary issue when attempting to fit the model. As previously discussed in chapter two, only the known causal path from SE to IVO was included in the theoretical model, as a bidirectional covariant relationship was unclear. Now, given the elimination of any direct path IVO to TOW, bidirectionality must exist if Maslow's framework is valid. Without a covariant relationship between IVO and SE, an intrinsic sense of self-worth would have no effect on transcendence, which would be both theoretically and empirically implausible. Numerically, maintaining the single causal path resulted in an IVO error variance significance of *p*=0.060, which was slightly

beyond the minimum threshold for acceptance. Adjusting the model further to a covariant relationship between IVO and SE drastically reduced this error variance to p=0.003. Indeed, all regression significances were p<0.001, while no error variance exceeded a significance of p=0.018.

Enacting all of these adjustments, generated a model which produced good to outstanding fit measures shown in Table 4.14. With these modifications, an acceptable and complete model was produced which partially validated research question one. However, there is one more consideration, or rather reconsideration. The GSR 3 continues to demonstrate a high MI impacting the overall model performance. As such, the same final model was rerun without this item, and fit statistics are comparatively shown in Table 4.14. Whereas both are good models, the removal of GSR3 improves all goodness-of-fit metrics, and the only worsening is a moderate increase to three error latent variable variances. The model without GSR 3 is the better of the two, and in particular shows a substantial improvement in χ^2, resulting in a p-value of 0.275. Performing a chi-square difference test on these two models yields a significance of p=0.0096. Therefore, the final accepted model did not include GSR 3, with this finalized model shown in Figure 4.3. However, since inclusion or exclusion of GSR 3 both generated models with acceptable fit, the item was not completely rejected. For the remaining sections of this chapter, two variations of TOW will be used. TOW-F which retains the item, and TOW-Model (TOW-M) which ignores the item. As a last examination of the items which comprise this finalized model, the Cronbach's alpha was computed for all 20 as a conglomeration, and collapsing the path structure. This resulted in a reliability of α = 0.863. Further, including the 21st item of the TOW-F dimension gives α = 0.867, which was an important consideration when determining an effective method to identify interviewees for qualitative assessment.

Table 4.14. TOW Goodness-Of-Fit Model Comparison

Fit Measure	TOW-F	TOW-M
χ^2	211.6	174.4
df	183	164
p-value	0.072	0.275
RMR	0.042	0.040
GFI	0.896	0.908
AGFI	0.869	0.882
CFI	0.975	0.990
RMSEA	0.031	0.020
PCLOSE	0.972	0.994

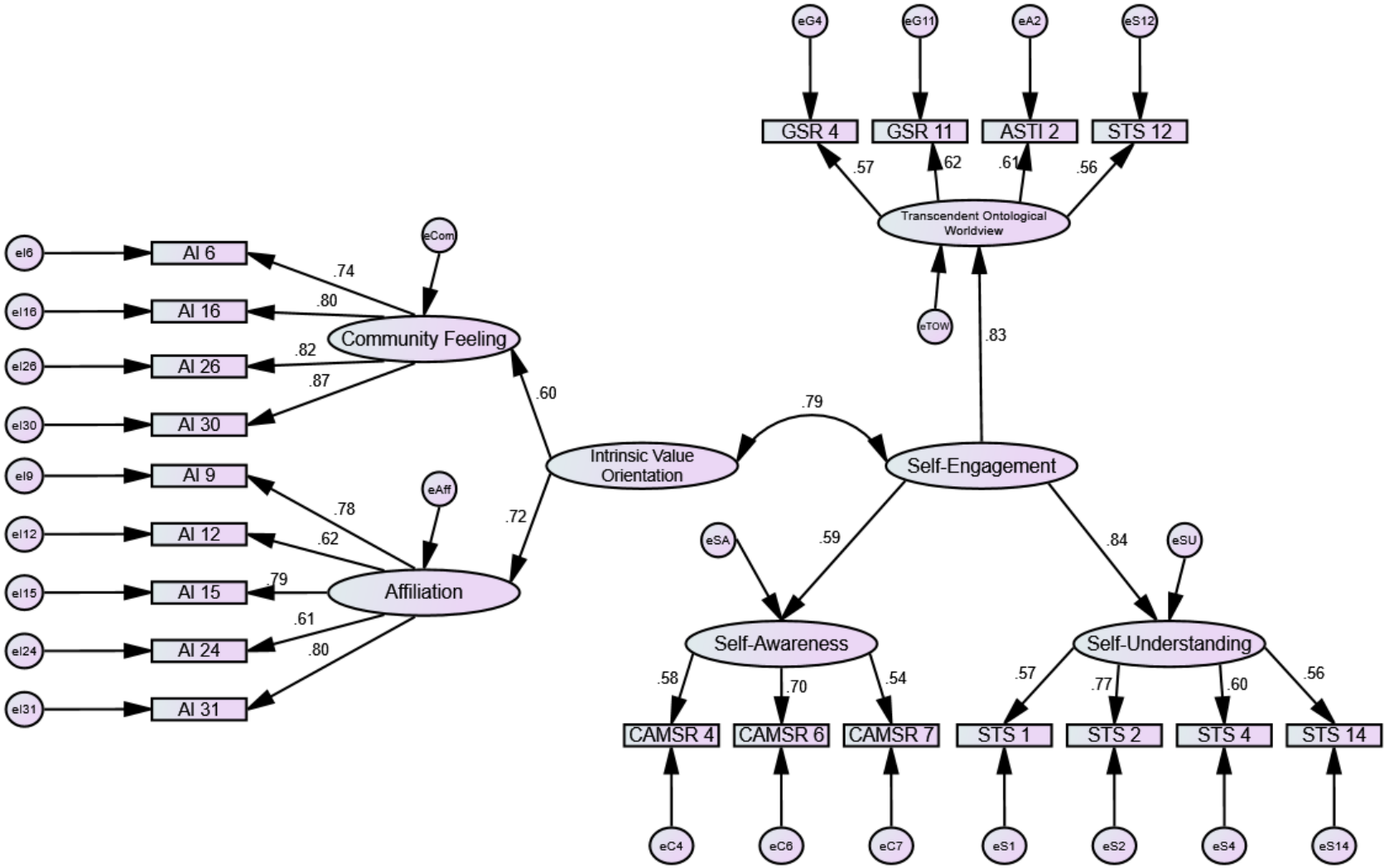

Figure 4.3. Final Path Model

Given the theoretical investment placed on time horizon and present-orientation, it was prudent to examine how these constructs fit into the development process since they did not perform as expected. The present-focus factor demonstrated the highest correlations with ESA (0.42), SA (0.34), and SU (0.33), which were all included in the initial structure of the SE latent variable, even though ESA was ultimately rejected. Additionally, present-focus showed equally strong correlations with both TOW variants (0.26). This suggests that being present in the moment does indeed have an effect on transcendence development, but may be mediated through SE. In order to perform a cursory exploration of this possibility, the present-focus factor was added to the final model, and allowed covary solely and directly with SE, as pictured in Figure 4.4. This model performed well with goodness of fit metrics: χ^2=234.2 (df=223, *p*=0.290), RMR=0.046, GFI=0.895, AGFI=0.870, CFI=0.99, RMSEA=0.017, and PCLOSE=0.999. Additionally, this model structure demonstrated a better fit than when present-focus is included as a subscale of SE, with $\Delta\chi^2$= 8.3 (Δ *p*=0.114). Like other aspects of the anomalous data, a clear theoretical picture begins to emerge once this quantitative data is combined with the qualitative interviews. As such, this extended model will be discussed in more detail in chapter five once all data sources have been discussed.

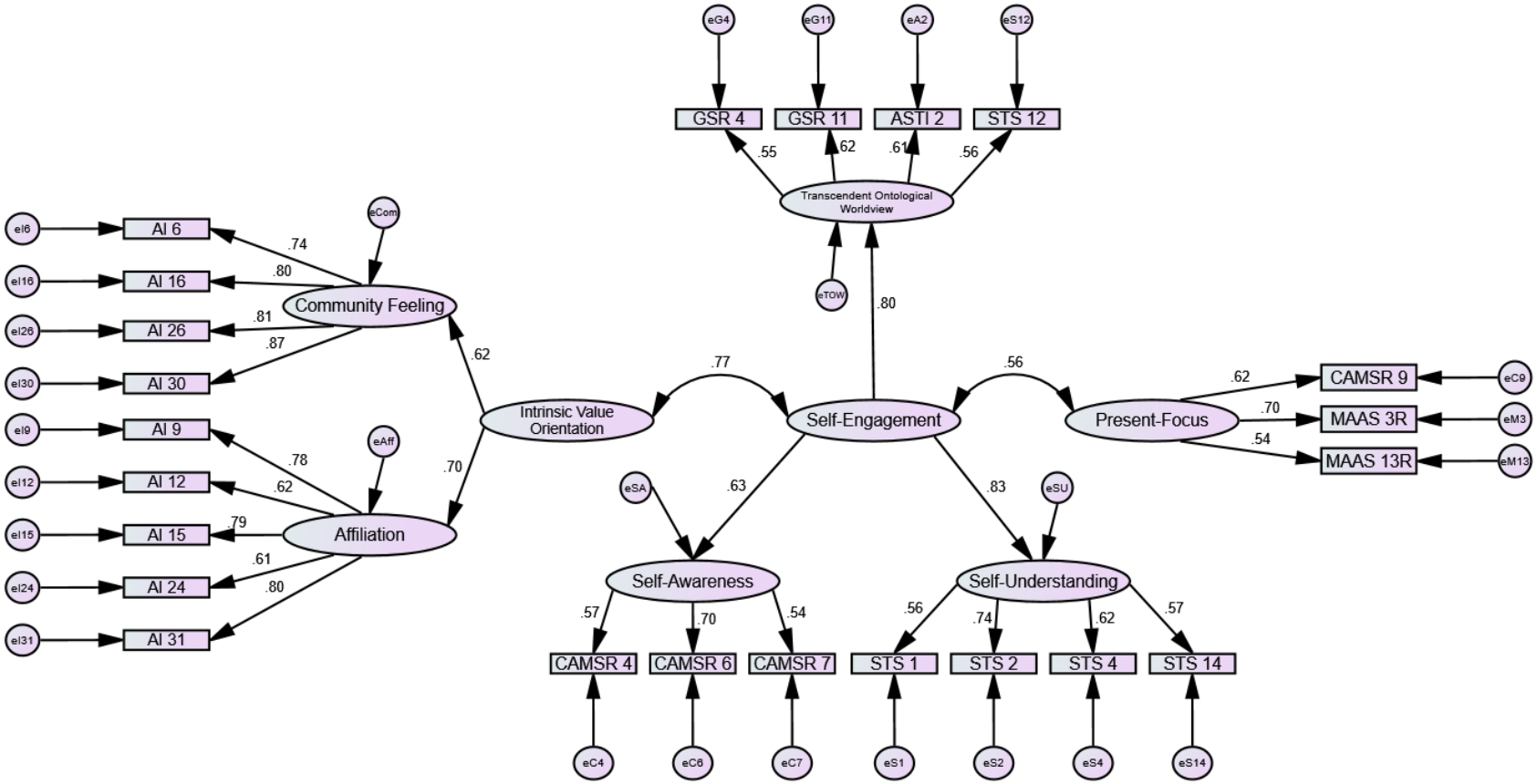

Figure 4.4. Extended Path Model with Present-Focus

Summary of Model Fit. Results from SEM fitting produced some unexpected outcomes. It appears that IVO does not directly influence TOW, and is instead fully mediated by the SE construct. The lack of a direct path between IVO and TOW necessitates that the relationship between IVO and SE be bidirectional in order to conform with the Maslovian framework this research was based upon. This bidirectionality suggests that the development of intrinsic sources of self-esteem and the willingness and capacity to engage with the self influence each other in a cyclical manner.

Further, the entire latent factor of ESA was eliminated from the model due to a high amount of unexplained covariance. ESA is a type of self-acceptance somewhat similar to the self-acceptance dimension seen in the intrinsic valuation metric, which was also not included in the model. Like the IVO dimension, ESA may not be well suited for this model as it is a conceptually static measure that attempts to explain an outcome state, rather than an active process. In addition to the elimination of the ESA variable, one critical TOW item was struck due to high unexplained covariance. This item appeared to be well related to the construct of TOW, and it is unclear why this observable variable did not fit well in the model. As such TOW was subdivided into two forms, TOW-F and TOW-M, with the first including the item and the later excluding it.

As a final model test, the singular factor of present-focus was included as a moderating variable on SE. This was accomplished to potentially address the role that a present-time orientation may play in the development process. Since SE and present-focus had a strong correlation between them and similar relationships with other model variables, it was worthwhile to evaluate this model structure. Indeed, goodness-of-fit measure produced similar numbers to the base final model with some measure showing slight improvement. This good fit suggests that THO does impact the transcendence development process, but does so in an indirect manner. THO may be one of many moderating variables which can affect SE construct, and thereby enhance transcendence development.

Analysis of Research Question Two

Confirmatory Analysis with Second Wave. In the second wave of data 124 inventory packets were collected, and compared with their previous assessment. The average length of time between first and second wave data collection was 34.2 days, with a standard deviation of 7.2 days. Unfortunately, due to the limited and rigid access to some of the student populations the time between waves could not be ideally controlled, which led to a rather high spread ranging from 21 to 49 days. This temporal variance may have been a contributing factor to poor longitudinal analysis, but did not make the data

entirely worthless. Two-wave growth curve modeling was attempted to ascertain if changes in the treatment group could be discerned among all participants. Each of the five model factors was treated independently, with a generalized model shown in Figure 4.5. Unfortunately for all five model factors, χ^2 significance was highly unacceptable at $p<0.001$ and all other goodness-of-fit metrics were equally as unflattering. Further, in all cases the significance for the growth curve slope estimate was p>0.90, indicating an egregiously poor confidence.

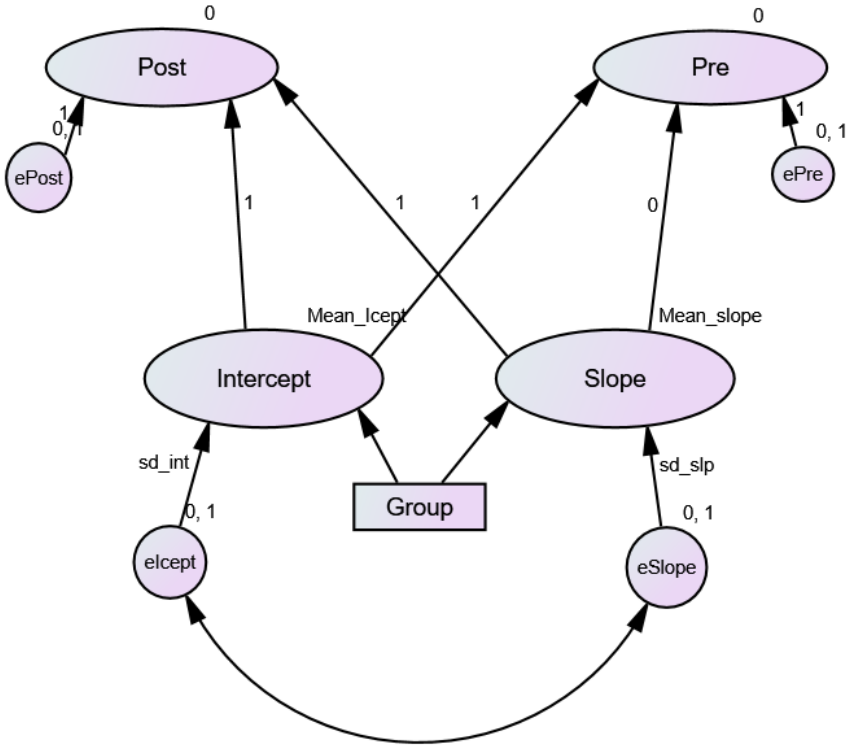

Figure 4.5. Generalized Two-Wave Longitudinal Model

There are multiple likely causes of this poor fit and inability to confirm the effect of the treatment course. As mentioned above, the lack of temporal control was a factor, but additionally the small size of the treatment group, only having two waves, and the brief time between those waves likely contributed to the low fidelity. Only having two waves limited statistical power in determining the linearity of the development process (Duncan & Duncan, 2009), while the short time difference between waves may have caused any real change to be "lost in the noise." That is, the amount of growth in the model increases over time, but the short time span means the amount change over that time is low. It may be low enough that natural fluctuations are greater than the growth at this stage. Such a possibility is supported by the acceptable, but low, reliability of each of the five model factors.

Despite the poor performance of longitudinal analysis, there were confirmatory indications within the data for the second research question. The first wave data produced a significant correlation between those who had previously taken the treatment course, and the factors of TOW-F/M (0.20/0.23), SU (0.14), and transcendence outcomes (0.16). These same significant correlations were also found in the second wave data, which now includes those from the current treatment group with TOW-F/M (0.24/0.16), SU (0.23), and transcendence outcomes (0.16). Even when this treatment group of only 20 participants was isolated, they still showed significant correlations with TOW-M (0.17), SU (0.19), and community feeling (0.15). These consistently significant relationships do indicate some potential impact from the treatment course. The full set of second wave correlations are shown in Table 4.15, and reliably emulate the associations among the first wave data factors. To establish how meaningful these correlation deviations were, the Fisher-z transformation was used to calculate the two-tailed significance of correlation differences to the p=0.05 level (Kenny, 1987). Applying this to all correlations shown in Table 4.15, only one entry was identified and it related to the model-rejected factor of ESA. This factor's correlation with SU ($\Delta r = 0.236$, p=0.033) significantly deviated from the first wave data, which additionally supports the elimination of ESA as a viable model factor. This represents an extreme difference, however, the average deviation among the measures shown in Table 4.15 was only 0.068. This hints at an overall stability in these constructs, giving credence to the model structure. Finally, a CFA was conducted on the model structure established from the first-wave data previously pictured in Figure 4.3. Using the data from the second wave, the model produced reliably strong goodness-of-fit with: χ^2=176.5 (df=164, p=0.238), RMR=0.043, GFI=0.881, AGFI=0.847, CFI=0.983, RMSEA=0.025, and PCLOSE=0.957. Such consistency over time serves as a validation that the developmental model represents a real-world process.

Table 4.15. Wave-B Factor Correlations

Factor	IVO-Com	IVO-Aff	SE-SU	SE-SA	ESA	TO	Course
TOW-Factor	0.39***	0.27***	0.52***	0.36***	0.3***	0.53***	0.19*
TOW-Model	0.36***	0.29***	0.56***	0.35***	0.26**	0.54***	0.24**
IVO Community		0.25***	0.39***	0.25**		0.25**	
IVO Affiliation			0.38***	0.26**		0.29***	
SE Self-Understanding				0.38***	0.15*	0.48***	0.23**
SE Self-Awareness					0.54***	0.44***	
Emotional Self-Acceptance						0.27**	
Transcendence Outcomes							0.16*

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Further Analysis: Outcomes and Demographics

Additional Correlations. In this section, first-wave correlations for relevant model and non-model constructs are reported, along with their relationship to demographics. Additionally, internal consistencies are summarized for all factors previously established. Table 4.16 shows all correlations for model dimensions as well as ESA and whether participants were part of a treatment group in the past. Almost all of these correlations were significant, with the majority at $p < 0.001$. These significant relationships were used as initial indicators for the development model, however, it is worthwhile to note those correlations which were trivial. Community feeling demonstrated an insignificant and marginally significant correlation with SA and ESA, respectively, while showing a much stronger tie with SU. Conversely, affiliation was closely related with SA, while insignificantly correlated with SU and ESA. This might have been an indication that these two intrinsic valuation subscales were not encapsulated in a higher level latent variable, but instead directly influenced their respective SE subscale. However, when attempting to model this path through CFA, a significantly worse fit resulted. Further, there may be a consequential relationship involving self-acceptance that the model was unable to account for. ESA demonstrated a strong correlation with both SE subscales, yet a comparatively weaker relationship to transcendence than other factors. Again, more will be discussed on this relationship in chapter five.

Table 4.16. Wave-A Model Related Factor Correlations

Factor	IVO-Com	IVO-Aff	SE-SU	SE-SA	ESA	Course
TOW-Factor	0.34***	0.32***	0.43***	0.40***	0.24***	0.20**
TOW-Model	0.34***	0.32***	0.44***	0.38***	0.23**	0.23**
IVO Community		0.38***	0.31***		0.14*	
IVO Affiliation			0.39***	0.27***		
SE Self-Understanding				0.36***	0.42***	
SE Self-Awareness					0.55***	
Emotional Self-Acceptance						

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Also, depicted in Table 4.16, is direct evidence which contributed to the second research question. Specifically, did the treatment course have an impact on participants' ontological experience of transcendence? Whether or not the students had been enrolled in the treatment course showed a 0.23 correlation at a significance of p=0.002. This suggested that the course did have an impact on participant's transcendent experience. Yet, it is peculiar that no other model variable showed a lasting effect. Two possibilities for this contradiction are that either the course bypassed the other

developmental variables of IVO and THO and directly influenced TOW, which is not supported by the strength of the model, or that the developmental variables act as true mediators influencing the dependent variable, but retaining an insignificant amount of lasting change for themselves.

Next, Table 4.17 shows correlations between model related constructs from Table 4.16 and non-model factors. The first of these was death acceptance, which interestingly showed no significant correlations with any model-related constructs, except the expunged Emotional Self-Acceptance. Such a result may indicate that acceptance of death is not a necessity in the development of transcendent ontology, but nevertheless, may enhance the process. The next factor in Table 4.17 was present focus, which bared a strong correlative similarity to ESA, which happened to be its strongest correlation from all model variables. That is, it correlated with both TOW-F and TOW-M in the mid '20s, showed no correlation with IVO subscales, and has a strong significance with both SE subscales. As with death acceptance, a present-focus may be involved more with some aspect of self-acceptance rather than the derived developmental variables.

Table 4.17. Wave-A Outcome Factor Correlations

Factor	Death Acc	Pres Foc	Trans Out	Fam Ed	Empathy	Soc Dom	Soc Con
TOW-Factor		0.26***	0.44***	0.46***	0.29***	-0.27***	0.24***
TOW-Model		0.26***	0.44***	0.50***	0.32***	-0.27***	0.25***
IVO Community			0.18*	0.34***	0.53***	-0.16*	0.25***
IVO Affiliation			0.22**	0.40***	0.51***	-0.20**	0.28***
SE Self-Understanding		0.39***	0.50***	0.49***	0.23**	-0.18**	0.26***
SE Self-Awareness		0.34***	0.44***	0.28***	0.15*	-0.22**	0.14*
Emotional Self-Acceptance	0.28***	0.43***	0.38***	0.25***			
Treatment Course			0.16*				

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The next factor of transcendence outcomes was significantly correlated with all model-related variables. As a result, it is unclear which model factors initiate this attitudinal and behavioral set of outcomes. The developmental process as a whole does appear to have a strong impact on these outcomes, regardless of the path structure. Further, a significant relationship was shown to exist between transcendence outcomes and attendance in the treatment course, which is expected since this factor is understood as a consequence of developing a transcendent ontology. Continuing on through Table 4.17, the next factor was family education. Though unexpected, yet unsurprising, this variable showed the most consistently strong correlations across all factors, model and non-model constructs alike. The effect of home and family upbringing appears to be the greatest overall influence on an

adolescent individual's development across all variables IVO, SE, and TOW. This was a rather revelatory finding, as this research was aimed at impacting students' transcendent ontology directly through educational intervention, but perhaps that aim should be equally directed at parental education. This possibility will be explored more in the next chapter. Following this, empathy also showed considerable correlation with all model variables, though the strongest, over 0.50, were with IVO dimensions of community feeling and affiliation. As a measure of self-esteem, this would predictably suggest that the degree to which people value helping their community and being close with others impacts their sense of empathy toward others in general. The final two factors which derived from the NPI inventory were social dominance and social confidence, a negative and positive trait, respectively. For social dominance, all five model dimensions showed a strong significant negative correlation, with transcendence exhibiting the strongest of these at r = -0.27. Such a relationship illustrates that the perception of being connected to humanity negatively impacts one's willingness to exploit and manipulate others. Conversely, social confidence demonstrated strong significant positive correlations with all model dimensions. This indicates that the transcendence development process results in a substantial increase in willingness to engage with others and take pro-social risks.

Finally, the correlations among all developed factors and demographics are shown in Table 4.18 and Table 4.19. Even though there were a number of significant correlations, a subset of these were worth noting here. For this particular set of high school students, empathy demonstrated a significant correlation with gender, as females measured higher in empathy than did males. This result conforms with previous research which indicated that adolescent females were significantly more empathetic than males (Mestre, Samper, Frias, & Tur, 2009). In an equally unsurprising result, there was a strong significant relationship between the strength of students' national and cultural identity and the value they placed on affiliation. This was assessed by first asking the participants to identify their nationality and ethnicities. Immediately following each of these questions, they were asked to rate the degree to which they personally identified with their national and ethnic identity. Speculatively, since the individual feels a connection with some personally relatable group, their sense of affiliation with that group would likely be enhanced. Further, ethnic identity was also positively correlated with increased community feeling, family education, and empathy. The opposite of this identification is that those who do not feel a connection with either of these groups, may potentially have difficulty valuing and experiencing a general sense of affiliation. Next, as expected, household income was uncorrelated with any of the model factors, and only showed a relationship with two non-model factors, weakly with

family education while much stronger for social confidence. This may suggest that familial economic status impacts the adolescents' willingness and conformability to socially engage with others and pursue goals. Following this measure, Grade Point Average (GPA) showed significant correlation with a number of model and non-model factors. As a measure of academic success, GPA demonstrated a positive relationship with empathy, self-understanding, affiliation, and community feeling, while also possessing a negative relationship with social dominance. If these correlations hold generally for adolescents, then the measures used for this study may offer a possible academic prediction tool for identifying at-risk students before they are in jeopardy of failure. Lastly, a rather shocking result was that attendance at the Buddhist school appeared to have no impact on any measured factor, except a weak significant correlation with ESA. This was surprising as the school's curriculum centers upon engendering traits such as mindfulness, empathy, self-awareness, and interconnectedness. At least to the level of sensitivity of these metrics, the school's program does not appear to be as effective as expected. However, this is beneficial for this study, as effects can be more confidently attributed to the treatment course, given that all treatment participants attended the Buddhist school.

Table 4.18. Wave-A Model-Demographic Correlations

Demographic	TOW-F	TOW-M	IVO-Com	IVO-Aff	SE-SU	SE-SA	ESA
Age	0.15*	0.15*		0.15*			
Sex				-0.14*			
School							-0.15*
GPA (72)			0.20*	0.30**	0.24*		
Household Income							
National Identity				0.23**	0.16*	0.14*	
Nation - Japan (13)						-0.15*	-0.16*
Ethnic Identity			0.14*	0.27***			
Ethnicity - Japanese (84)							
Ethnicity - Hawaiian (13)				-0.16*			
Ethnicity LatinX (15)			0.15*				
Religious Identity	0.17*	0.14*	0.17*				
Religion - Christianity (38)	0.16*	0.19*					
Religion - Buddhism (36)	0.14*		0.16*				
Religion - Atheism (31)	-0.28***	-0.32***	-0.21**	-0.25**	-0.16*	-0.18**	
Religion - Agnosticism (14)		-0.14*					

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4.19. Wave-A Outcome-Demographic Correlations

Demographic	Death Acc	Pres Foc	Trans Out	Fam Ed	Empathy	Soc Dom	Soc Con
Age							
Sex					-0.24***		
School							
GPA (72)					0.22*	-0.28**	
Household Income				0.15*			0.23**
National Identity	-0.19**	0.15*	0.17*		0.13*		
Nation - Japan (13)			-0.18**				
Ethnic Identity	0.15*			0.14*	0.21**		
Ethnicity - Japanese (84)							-0.13*
Ethnicity - Hawaiian (13)		-0.17*					
Ethnicity LatinX (15)		-0.14*			0.15*		
Religious Identity					0.17*		
Religion - Christianity (38)					0.18**		
Religion - Buddhism (36)		0.15*			0.13*	-0.14*	
Religion - Atheism (31)	0.14*	-0.17*	-0.19**	-0.19**	-0.19**		
Religion - Agnosticism (14)		-0.13*					

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

More directly related to the research questions posed here was the role that religion played in both one's experience of TOW and empathy. Strength of religious identity in general, as well as specific identification with Christianity and Buddhism showed a weak to moderately significant relationship with TOW-M/F and empathy. Conversely, those who identified with Atheism demonstrated a moderate to strongly significant negative correlation with all model factors, family education, empathy, and transcendence outcomes, where the negative correlation was particularly large for TOW-F/M. It was not theoretically expected that religiosity would show a correlative effect on the developmental model, given the various interpretations, beliefs, and practices which may intrinsically or extrinsically affect TOW development. However, it does appear that those who at least identify as religious or spiritual in some way are slightly advantaged, while those who oppose any religiosity suffer strongly with the factors measured.

Qualitative Analysis

From the 167 participants in the first wave, a small subset of 10 students was selected for follow-up interviews. Identifying these participants was accomplished using a collective z-score of the five factors established for the model, except that TOW-F was used instead of TOW-M. That is, z-scores were calculated for TOW-F, Community Feeling, Affiliation, SA, and SU and summed together. A second

z-score was then determined for this cumulative score. By using this collective z-score, it was possible to identify those who were at both extreme ends of the development process. The effect of this approach was that each of the five factors was equally weighted and unbiased toward identifying interviewees. However, a disadvantage of this method was that if one of the factors for a participant was at 4-sigma, but the other scores were moderate, they could have been identified as an interviewee. To control for this, the candidates were reviewed to ensure that no one score overly biased the measure. From this list, an attempt was made to contact a total of 23 participants from both schools used in this study, however, responses were only received from students who attended the school where the researcher was employed. Additionally, some potential interviewees were unavailable due to relocation or graduation.

From the 10 interviews conducted, four were high-scoring participants and the remaining six were low-scoring participants. Each interview lasted 37 minutes on average, with all respondents answering the full set of 12 prepared questions. In three cases, the interviewee became emotionally overwhelmed and began to cry. When this occurred, the participants were asked if they wished to stop or skip the question, but all chose to continue. Once all interviews were completed, the recorded audio was reviewed and parsed into common themes and patterns. The expected outcome was that all participants would be easily classified as either intrinsically transcendent or extrinsically isolated. However, as Table 4.20 shows, interviewees demonstrated three distinct patterns in their views and thoughts. Two of these did conform to theoretical expectations, but a second type of low-scoring individual emerged (four interviewees), which appeared to be more prevalent than the strictly extrinsic person (two interviewees). The qualitative data for these three participant types are given below with limited discussion of theoretical interpretation or integration with quantitative data. That synthesis will be left for chapter five, while this analysis focuses on presentation of participant perspectives only.

Table 4.20. Interview Summary Themes

Moniker	Validation-Seekers	Self-Limiters	Growth-Seekers
Metric Score	Low	Low	High
Summary Perspective	"I must hone my natural talent and win so others will value me as a person."	"I am inherently limited in how much I can achieve and grow, but others are not."	"There is so much diversity to experience and grow from in life! Where do I start?"
Transcendence	Do not feel connected to others and the world. See connection as simply self-interested interactions.	Believe in and maybe feel connection, but not manifested as practically or intensely.	Feel a deep connection to others and the world, manifesting practically in behavior.
Self-Engagement	Engage only to maximum innate, typically singular, skill aptitude.	The self is static and permanently incomplete making self-engagement pointless.	Must grow self through diversity of experiences. View self-expansion as integral to social contribution.
Intrinsic Valuation	Engaging with others & the community only for gaining favors, attention, respect, etc.. Believe others have same motivation.	Contributing to others and community is intrinsically meaningful.	Contributing to others and community is intrinsically meaningful. Also, provides an avenue for diverse experience and growth.
Extrinsic Valuation	Value societal symbols of success to achieve positive regard from others.	Low materialistic desires. Believe materialistic influences can't affect or change them.	Little to no materialistic desires. Believe materialistic influences can distract from meaningful pursuits.
Diversity	Unaddressed in interviews.	General appreciation of other's uniqueness, and a desire to support those people.	Idolize and revere diversity for the self-expansion it provides.

Growth-Seeker Data. Four interviewees demonstrated perspectives and attitudes of what was deemed the Growth-Seeker. All of these individuals were high-scoring participants and were theoretically expected to show high self-transcendence, intrinsic valuation, and self-engagement. Across all four interviews this appeared to hold true for the model constructs.

As the name implies these participants valued personal growth above all else, as they derived immense happiness from pushing the boundaries of their selves. This constitutes a center paradigm seen in these interviewees, however, it often paired with a second interwoven perspective. That is, growth serves the specific purpose of enhancing their ability to contribute to the well-being of others. This interplay was seen in numerous statements by these Growth-Seekers:

> I have little hobbies that keep me entertained that bring me some joy through daily life. And within those hobbies there's like little accomplishments that you have to set for yourself like drawing, guitar, skating, and such. It's always a challenge, and I feel like knowing that I was able to overcome them will make me feel in a way that's complete because it's somewhat rewarding knowing that you do something [challenging]. . . . So I feel like really is just me you know getting through the day by making others happy and that's hopefully my happiness makes other people happy. And it just carries on through the day; like every single day.

> I'm always looking out for people or trying to help them even if they like try to push me away. So I feel like in a way I'm like a counselor kind of person because I like listening to people and like trying to get them to vent to me because holding in like thoughts they're not good for you; obviously sucks. So I guess in really any community I'm in I'm always looking out for others.

> I want to be that person for people in Hawai‘i, and so when I grow up I hope to be a trauma surgeon, and doing that I'll be able to give back to the community that I grew up in. . . . But I want to do that because I think that's to push myself and so that job gives me, puts me in a position to give back to the people. . . . Even if it's just me going to school I feel like that's a stepping stone to where I want to be,. . . to going to college; from going to college to being a doctor, and being a doctor is how I feel like [I can] give back. I can spend my life giving back to the community.

> Everyone is their own individual . . . but it doesn't mean that it's going to contrast with you having your group identity because I can be my own person as long as what I do is generally kind and good. That goes hand-in-hand with the group identity.
>
> I think I want to do something for the world that's not just a job, like nine to five. I want to do something that brings me joy but also can help other people. Not just for [societal norms], like have money, but like end suffering. That's something that everyone has in common, like they want to end suffering, so I want to do something that can fulfill that goal . . . and getting more happy.

These worldview perspectives highlight the focus of the Growth-Seeker on self-engagement. They wish to push themselves and challenge their limits in an effort to expand and grow. With each new expansion they grow their ability to help and aid others with their intrinsic strengths. However, regardless of the manner in which they hoped to grow, all participants described a specific mechanism for change and expansion. Appreciation of diverse perspective and cultures appeared to be a commonality shared by interviewees, and was seen as an instrument for growth:

> I think I value different perspectives because . . . I want to pursue business so I wanna . . . know how everyone else thinks, I guess, so I can get better at what I do. . . . I want to take the things that I like about every single different culture and just apply it to my life, so I can like make everything so efficient for me, or just things that I like.
>
> I think once you understand like once you understand everyone else it's hard not to love them and once you understand that I feel like you can live your life differently even if you feel like "Ah! I'm living life to the fullest." I think once you understand everybody else around you can take a step further.
>
> [I'm] grateful for what I have here, and being able to experience so many different things in one place, like culture-wise because in Hawai'i there's like so many different foods you can try, and there are all these cultures blended, and you have so many more resources to like learn languages, and different fields of study . . .

The interviewees above were interested in diverse points of view, and genuinely fascinated with understanding the perspectives of others, both individual and culturally. This served to both grow themselves and establish a meaningful connection with those peoples. This is an unsurprising valuation

as the transcendence development involved the intrinsic values of community and affiliations. Additionally, even though not present in the model the interviewees demonstrated low levels of extrinsic materialism, and an awareness of the psychological influence that material wealth can bring, as demonstrated below:

> Like if you really materialistic and buy a bunch of cars, you're going to have to pay them off. That's a lot of money. That's a lot of stress, but if you just donate money or you just keep it to buy little things that you can use in your own life that you don't have to continue paying off.

> You don't know because you tend to look by your happiness and sometimes you don't see that you're unhappy because you're like oh I have this nice house I don't have to worry about putting food on the table. This is this and this but you know I feel like more money if you're not focused on your core values it could lead you astray. It's really important for me that's not materialistic things.

> If you think about if you have like a really big house with like seven rooms then you have to clean all that. And I don't like cleaning and that sounds terrible because why do you have it you just don't. If you're only going to use two rooms why you have seven. I mean if you're going to have guests you have one room extra. That's manageable. But if you just living without like outside of your means then I feel like it's just extra baggage that's weighing you down from doing other things that you really want to do.

Validation-Seeker Data. In contrast to the Growth-Seekers, the Validation-Seeker interviews took on a considerably different tone. Even though there were only two interviewees that fit this type, their perspectives aligned well with the theoretical expectations of an extrinsically isolated person. The key paradigm expressed by these two adolescent males was that success is inseparably connected with social acceptance. This success could take the form of competitive dominance, or simply conformity to social group expectations, as seen in the following statements:

> I always have to be number one . . . sometimes I even hate myself even if I just get second place. I even cry sometimes if I don't win. Even at the smallest things. A little argument too. My pride is too high and I never give up no matter what, even if the guy. . . . I've never gotten into a big fight before, but I feel that . . . even if there is a guy who wants to fight me and he disrespected me, umm, of like what I am, that I won't stop. I won't stop until I'm on top and I'm winning.

> After you win people just come up to me and shake my hand, take pictures, and they want to practice with me. That's when I feel more connected to them. It's only if I do good in [fencing] people will want to talk to me. (sport changed to protect privacy)
>
> I'm not that bad [at skating]. It's just because like I wanted to be accepted by my friends. They were always like . . . the cool guys of the school, and no one was really talking with me. So, I was like, oh! they go to this [skate] park, so I'm gonna start. If I'm going to be able to be like them, I want to try to make them say "oh, wow! He's good! He's wonderful." So that's why I like started skating.

The disheartening converse of this obsession with success and acceptance is that these extrinsically driven individuals live with a continuous fear of losing or failing. If social acceptance is tied to success, then disconnection is related to failure. This fear of ostracization and the desire to avoid it appeared to be a strong motivator for these interviewees, as describe in these perspectives:

> I think it's just [a fear of] losing in general. Losing friends. Losing tournaments.
>
> I cannot lose because, since in Hawai'i I'm like one in like; this is a rare chance that I'm able to compete at such a young age. I feel kind of intimidated, and if I lose, then [the fencing community] is gonna hate me forever, and I just cannot lose at all. I have to prove my worth. (sport changed to protect privacy)
>
> I try to be accepted by people, and sometimes they are not the right people. I mean, sometimes I'm trying just to be, you know, the guy who's always funny. . . . I care too much about what people think of me, so I try to be accepted by them, and then I started doing dumb things. And that's what always changes me. . . . I saw them skating so I started skating.
>
> Sometimes I feel not really connected to people. . . . It doesn't mean I can't find friends. I'm not saying that. Frankly, I don't really get connected [to others].

This last quote exemplifies a possible protective function for the Validation-Seeker. That is, if connection with others is dependent on group ideas of success and failure, which is not always within the individual's control, then it may be more beneficial to avoid strong attachments. Such a perspective on human relationships differs considerably from the Growth-Seeker who wishes to continually learn about and expand their connections with both communities and individuals. In place of these intrinsic valuations, both the interviewees expressed an extrinsic reverence for material wealth by stating that:

> The more you have the better. . . . The more money you have is just a sign of winning and accomplishment, and it's just less worry. . . . Every single time I would always pick money [over anything else].

> I don't really see someone having a lot of money and do whatever they want, and being sad you know. I think it is like, I'm not saying the money [is] happiness but they can, they can like, . . . Like nowadays [it's] all based off money. Having a lot of stuff. [It allows you to] be like high level (high status) . . . So I think it is one of the main things. So is it's all around money.

Self-Limiter Data. The third participant type identified during interviews was unexpected. The four Self-Limiters interviewed were low-scoring individuals, but did not appear to possess the same extrinsic desire for acceptance-through-success as the Validation Seekers. Indeed, all four participants demonstrated intrinsic valuations more closely associated with Growth-Seekers. However, there was a characteristic difference between the expression of intrinsic values between these two types. The Self-Limiter expressed a desire to help others in vague non-descript ways that would not have strong impacts on others or the community. This was seen in all interviewees as they expressed:

> I want to make people happier by like helping them or just doing things that I feel like would make them have a positive outlook on life. I want to make people happier by like helping them or just doing things that I feel like would make them have a positive outlook on life. . . . I would try to do [this] by just being nice to people or seeing if they need anything. Or if I can help them in any way just to make their lives a bit easier.

> In a sense it's like I don't really think that I have a big part on the world. Like I don't think my contribution to the world is going to really do anything but I kind of hope to push other people like, that I see who you know have talent like they can do things for other people that have good ideas and stuff I still like help them in their ideas and push them forward to help contribute [to] the world.

> In the movies and stuff like that they always have like the main character but then they have the supporting roles. Usually it's pushed back. But like if you read the books and some of them like the supporting characters sometimes like one of the most important roles in helping them realize what they really need to find the answer to whatever they're looking for.

> Well I don't think that I'm gonna be as great as Steve Jobs or Newton . . . Something like I don't think I can I make . . . like a huge impression [on others] . . . I mean I'm not a hard working person so I don't seek . . . huge accomplishment[s]. It's just something that, or maybe I can do and it's meaningful to the people around me.

It should be noted that neither of the other two participant types viewed their contributions, or ability to contribute, with such marginalized descriptions. Nevertheless, these individuals did at least appear to value intrinsic values, but in contradiction to theory did not seem able to build on this to self-actualize their intrinsic desires, leading to these nebulous ambitions of helping. The four interviewees have been impeded by a lack of self-confidence to make a true impact on their world. Three of the Self-Limiters explicitly gave explanations of how they were incapable of growing their talents and ability due to some arbitrary limitation in their personal narrative describe below:

> I don't think I have really any unique talents. Because of, like they weren't able to form . . . I think I might have held them at one point but because I give up so easily if things got difficult they weren't able to develop I guess. So like I could have had a unique talent but I didn't like put enough effort into it for it to become a unique talent to this day, I guess.

> I'm not a hardworking person so my parents always scold me to like. "Well why aren't you doing homework" or "Why are you still playing video games." You know it's just how I am I guess. I'm lazy and yeah it's discouraging . . . I guess being a lazy person is like most people don't want to see me coming. But I guess that's my identity.

> I think of everyone around me as, you know they're like, little gems, and they grow, and they prosper. Everyone is so unique and special in their own ways. Nobody deserves to be sad, or in pain. . . . [However], I'm not really a gem. I'm just here, you know. I'm like a little cloud. . . . I don't think I have any talents. . . . I'm worthless and I feel like I don't have any value, and I compare myself to others all the time. But, I know that I'm not a bad person, you know . . . but I can't say anything really positive about myself.

Qualitative Summary. As alluded to throughout this chapter, the key to explaining the anomalous quantitative data lied in the qualitative data. Indeed, a large amount of emphasis was placed on these qualitative interviews in the process of explaining the quantitative results. However, with only a total of ten interviews spread across three different participant types, it is possible, if not

probable, that some key perspectives of these participant groups were missed. That would mean that the type generalizations made in Table 4.20 and in chapter five are incomplete, and not reflective of the full scope of participant views. In future research, further interviews would serve to enhance and expand these qualitative descriptions. However, since interviewees were chosen specifically for being at the extremes of the quantitative measures, they likely represent an accurate depiction of high- or low-scoring individuals, even if those depictions are not complete. With the values, beliefs, and worldviews that were expressed by these extreme scoring participants, consistent themes arose which delineated the three types of interviewees identified. It is the presence of this unexpected type of participant which brought the quantitative anomalies into focus. It aided in the elucidation of SE as a core developmental dimension and the bi-directionality of IVO-SE, as well as the developmental origin of self-transcendence. Specifically how this third type relates to SE is theoretically investigated within the context of Maslow's motivational theory in the proceeding chapter, as well as a synthesized understanding of the transcendence development as a whole.

Chapter 5: Discussion

Research Question One

How well does the transcendence educational path model explain variations among the three variables of Intrinsic Value Orientation (IVO), Time Horizon Orientation (THO), and a Transcendent Ontological Worldview (TOW)?

Intrinsic Growth-Expansion Cycle. Based on model results, research question one was partially validated through the dimensional and path analyses. However, some sizeable deviations from theoretical expectations required reevaluation and restructuring of that theory. To address these deviations, it is pragmatic to look back at the theoretical framework itself, as this forms the foundation of interpretations and expectations. It may be possible to explain such unanticipated outcomes within the preexisting framework, without need to seek guidance from additional theories not previously explored. As such, this discussion returns to Maslow's theory of motivation to address the anomalies found. The full list of theoretical deviations which needed to be addressedis:

1. Recasting of Time Horizon Orientation (THO) to Self-Engagement (SE)
2. Indirect relationship between Intrinsic Value Orientation (IVO) and Transcendent Ontological Worldview (TOW)
3. Bidirectionality of IVO and SE
4. Dual motivations of low-scoring participants
5. Extrinsic values invariant to model variables

As with most aspects of motivation, and humanity in general, it is often necessary to explore concepts as a conglomeration, since causes frequently overlap, and these deviations were no exception. However, it is prudent to first address the revelation that the model was not well represented by the THO variable, and instead was more closely related the concept of SE. To uncover the probable causes of this rather fundamental change, it must first be acknowledged that the original theory proposed in chapter two was inaccurate. The source of this variable misrepresentation can possibly be understood in the translation of Post-Traumatic Growth (PTG), into Maslow's motivational theories. Being present-focused by itself is not tied directly to any of Maslow's levels of need, nor motivation in general. Instead it was thought of more as a moderating or mediating catalyst which impacted needs by diverting one's attention toward emotionally meaningful goals in the present or resource acquisition goals in the future, in accordance with Socio-Emotional Selectivity Theory (SST) (Carstensen et al., 1999). Whereas being

present-focused did appear to possess a strongly significant correlation with SE and a moderate one with TOW, it did not impact intrinsic valuations in any discernable way, which was initially why it was eliminated from the model. This suggested that being present-oriented does have an effect on development, but that it acts more as a moderator on SE rather than a direct component of the development process.

Such an outcome helps disentangle how the development of a present-focus or closing time horizon enhances the growth of a more self-actualized person. When discussing present-minded people, there is often an association with their awareness of the moment in the external world; one's moment-to-moment experiences (Frias et al., 2011; Martin & Kleiber, 2005). However, awareness of the moment is not necessarily restricted to only the external, and may also be an inward awareness of one's intrinsic self. Certainly, in the research on mindfulness, there is a strong emphasis on this self-awareness (Bergomi et al., 2013; Brown & Ryan, 2003; Feldman et al., 2007). Within this data set, the propensity toward a present-orientation appears to encourage a more intrinsically reflective engagement with the self. A similar rationale can be applied to the role of emotional self-acceptance within the development model. That is, the factor of emotional self-acceptance showed similar correlations to that of the present-focus factor, which may indicate that it is part of the process of becoming present-focused and self-engaging, but is external to the SE factor. Not enough data were gathered on this aspect of the model to reliably and plausibly speculate about this complex sub-process. Further research will be needed to tease out these details. Nevertheless, within the context of this research, it is reasonable to conclude that this change to the original model could be better described as providing greater fidelity on the process than a direct contradiction. However, not all anomalous results lead to such a validating conclusion.

To address the next peculiarity in the results, Figure 5.1 shows the original model representation with updated path structure, ignoring the expansion of present-focus for the moment. Had the anticipated linkages maintained themselves in the data, then this representation would have been a fair visualization to understand the constructs. However, since they did not hold true and there were other unexplained anomalies, a reimagining was necessary. As will be explored below, an equivalent, but more accurate, representation of the adjusted model is shown in Figure 5.2. Firstly, the verticalization of all variables, better conforms to Maslow's Hierarchy of Needs (Koltko-Rivera, 2006; Maslow, 1954), with IVO relating to self-esteem, SE with self-actualization, and TOW with self-transcendence. Secondly, the single bidirectional arrow between IVO and SE is replaced by two curved arrows to emphasize a self-

enhancing circular process. That is, greater SE encourages greater IVO and greater IVO encourages greater SE. Note that this alternate representation is structurally identical to the previous model form, but may be a better illustration of the developmental process described herewithin.

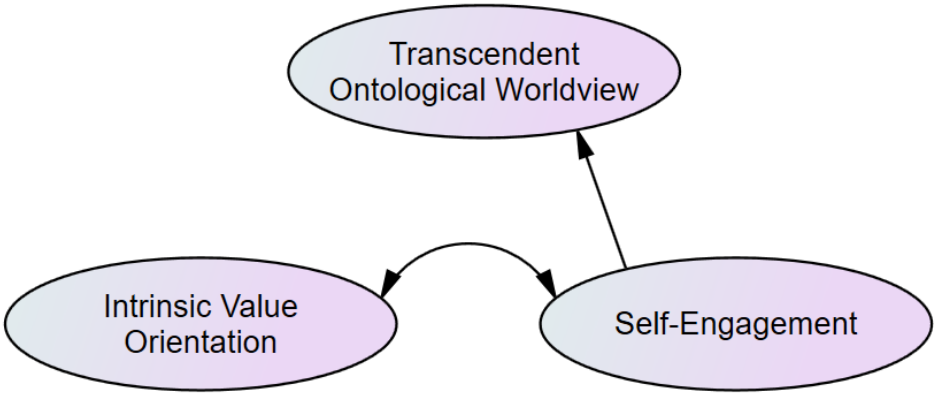

Figure 5.1. Adjusted Transcendence Development Model

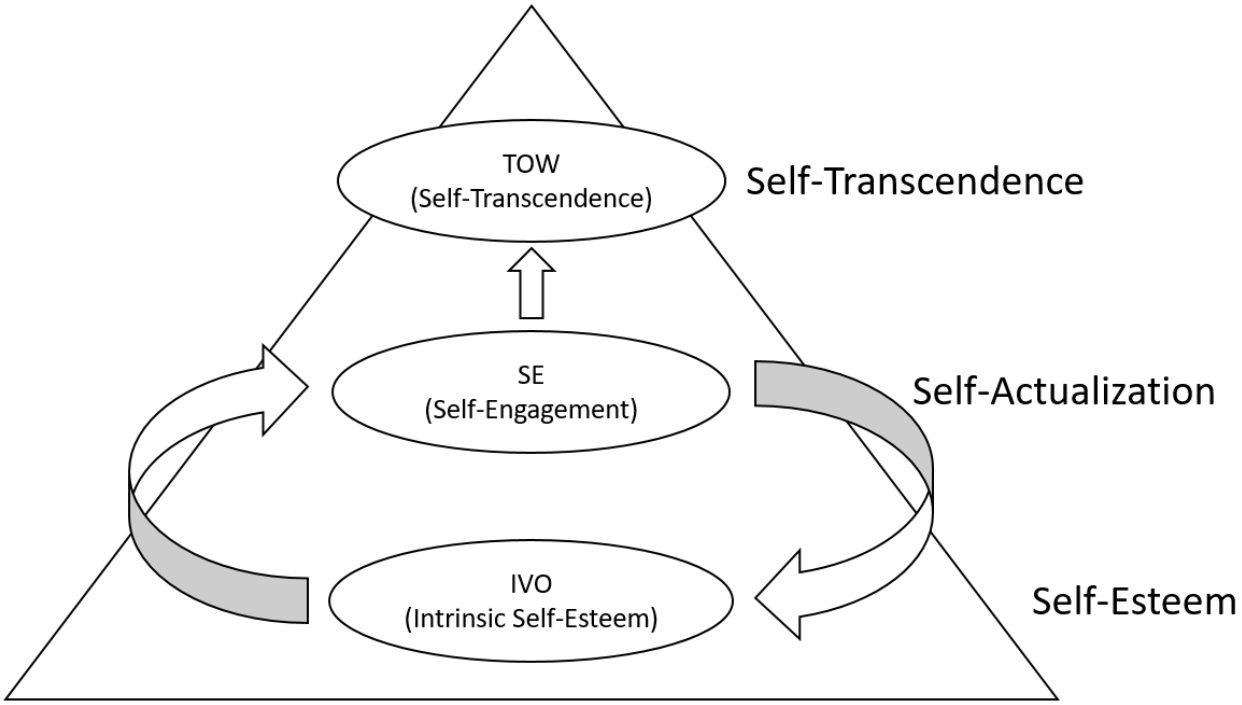

Figure 5.2. Reconeptualized Transcendence Development Model

Within the context of Maslow's framework, the verticalization of all constructs begins to explain how the relationship between IVO and TOW is fully mediated by SE. Regardless of how intrinsic one's source of self-esteem may be, self-transcendence is predicated on the ability to self-actualize. This statement has far reaching ramifications, but to understand how, one must combine both the

qualitative data from this research with Maslow's understanding of self-actualization (Maslow, 1968); a need level largely ignored in the inception of this study's theoretical framing. It was taken as an assumptive certainty that if people were to cultivate intrinsic sources of self-esteem, and limit extrinsic ones, they would naturally propel themselves through self-actualization and into self-transcendence. However, this axiom was not supported by the data. The intervening factor which mitigated this assumption was seemingly the individual's self-concept, which is sometimes defined as "the totality of a complex, organized, and dynamic system of learned beliefs, attitudes and opinions that each person holds to be true about his or her personal existence" (Purkey, 1988). It appears that one can show a solid reverence for community and affiliation as one's primary source of self-esteem, yet not show a strongly cultivated self-concept or transcendence. This possibility well explains the observation of distinctly different valuation perspectives in the low-scoring participant interviews. The expected motivational schema of high extrinsic valuation and limited self-concept (Validation Seekers) was evident during qualitative investigations, but so were participants with high intrinsic valuation and low self-concept (Self-Limiters). Encouragingly, no interviewee demonstrated a high degree of extrinsic valuation and high self-concept, as this is an excluded state according to theory. That is, theoretically, it should not be possible for an individual to have cultivated and actualized an intrinsic self without first valuing intrinsic ways of being. Understanding the primary sources of these valuations and self-concepts for adolescents is discussed later under Family Education and Parenting Style. However, for the current examination only the present state of the participants is addressed.

Maslow defined self-actualization as "ongoing actualization of potentials, capacities, and talents, as fulfillment of mission . . ., as a fuller knowledge of, and acceptance of, the person's own intrinsic nature, as an unceasing trend toward unity, integration or synergy within the person." (Maslow, 1968, p. 23). Of particular importance in this description is movement expressed as, "ongoing" and "unceasing." What drives the self-actualizing person is growth; not growth toward a specific destination, but growth for growth's sake. To describe this continual "becoming" Maslow explains:

> In such people gratification breeds increased rather than decreased motivation, heightened rather than lessened excitement. The appetites become intensified and heightened. They grow upon themselves and instead of wanting less and less, such a person wants more and more of, for instance, education. . . . Growth is, *in itself*, a rewarding and exciting process, e.g., the fulfilling of yearnings and ambitions, . . . , the steady increase of understanding about people or

> about the universe, or about oneself; the development of creativeness in whatever field, or, most important, simply the ambition to be a good human being (Maslow, 1968, p. 28).

The relationship between the conceptual understanding of self-actualization and the operationalized definition of SE may be rather direct. In order for an individual to achieve any level of self-actualization, there must be a willingness and ability to engage with one's intrinsic self. It is through the process of perpetual self-engagement and subsequent growth that one begins to self-actualize. In essence, this is akin to a Bayesian process where with every new piece of information gained, the individual incorporates that understanding and redirects efforts toward ever more accurate truths (Sirota, Vallée-Tourangeau, Vallée-Tourangeau, & Juanchich, 2015). However, unlike the typical Bayesian problem, the True solution is an eternally moving target that expands and grows with each new information gathering experience. In support of this self-expansion, Franken (1994) stated that:

> it is possible to change the self-concept. Self-change is not something that people can will but rather it depends on the process of self-reflection. Through self-reflection, people often come to view themselves in a new, more powerful way, and it is through this new, more powerful way of viewing the self that people can develop possible selves (p. 443).

To that end, the self-actualizing person seeks experiences and knowledge beyond his or her own current understanding, challenging their worldview and preconceived perspectives. This need for constant self-expansion is explained by Maslow when stating that "in growth-motivation,. . . . there is no climax or consummation, no orgasmic moment, no end-state, even no goal if this be defined climatically. Growth is instead a continued, more or less steady upward or forward development" (1968, p. 31). Further, this desire for growth in self-actualization is juxtaposed against the need for safety and defense for the deficiency focused person. That is, since fulfilling motivation at a deficiency level is seen primarily as maintaining and protecting what the individual already has, they ". . . must be more afraid of the environment, since there is always the possibility that it may fail or disappoint them." In this way, one whose motivations center upon defense, would not likely seek out experiences that would cause intimate self-reflection that challenges worldview. Instead, it is more probable that the deficiency focused person would engage in self-absorptive experiences in an attempt validate and secure the righteousness of preexisting worldview structures. Recall the analogy proposed in chapter two which likened self-esteem motivation to a bucket being filled with liquid. The deficiency focused person sees the liquid (self-esteem) as precious and limited, therefore, requiring vigilant protection. Contrastingly,

the growth-centered person sees their bucket as already floating in an ocean. In this case, the goal is not to protect what's already in the bucket, but to find a bigger container (growth). This dichotomy between desires for knowledge and growth versus safety and defense, is expounded upon considerably in Maslow's framework, but one of the most profoundly impactful areas is that of appreciation of risk, diversity, and openness to new experiences. The self-actualizing person is more prone to show appreciation and love of diversity in all forms, be they culture, ethnicity, politics, or nature. Indeed, this honoring of diversity was seen clearly during the high-scoring interviews for all participants. These individuals saw exposure to diverse perspectives as integral for themselves in the future. Such a perspective can be readily seen in the Growth-Seeker quotations in the previous chapter. These statements illustrate the role that growth plays in the self-engaging, self-actualizing person. Indeed, there is almost a deification of diversity in the eyes of these self-actualizing adolescents, as this is a prime source of growth experiences. It appears to provide them with new perspectives on life and reality which they could never experience if not exposed to such difference. Such a reverence for diversity as a means of growth provides another avenue to enhance the self-transcendence development process beyond present-orientation discussed above. There may be a limitless number of experiences which can enhance one's growth toward self-actualization, but diversity and present-time orientation appear to be the strongest identified thus far. Regardless, of critical importance is the role of self-actualized growth within the development of self-transcendence. That is, the data suggests that self-actualization, as a discrete construct from intrinsic self-esteem, is required for self-transcendence. Further, self-actualization is realized through expansional growth, and may be accomplished by engaging in experiences related to diversity, focusing on the present moment, or some other type of growth-initiating event.

Such a close relationship between self-expansion and the self-transcendence process may help to explain why the two concepts are so often interwoven. Within the context of diversity, this connection is described throughout Maslow's writing. Through the self-actualization of continual self-expansion, the traits of the self-transcendent person emerge. This is described by Maslow (1972) in the following ways:

> In a very specific sense, the self-actualizing man, or the transcendent self-actualizing man, is the universal man. He is a member of the human species. He is rooted in a particular culture but he rises above that culture and can be said to be independent of it in various ways and to look down upon it from a height, perhaps like a tree which has its roots in the soil but whose

> branches are spread out very high above and are unable to look down upon the soil in which the roots are rooted (p. 260).
>
> My identification with nationalism, patriotism, or with my culture does not necessarily mitigate against my identification and more inclusive and higher patriotism with the human species or with the United Nations. As a matter of fact, such a superordinate patriotism is, of course, not only more inclusive, but therefore more healthy, more fully-human, than the strict localism which is regarded as antagonistic or as excluding others (p. 264).

Of course, the adolescents surveyed for this research were only beginning the process of individuation and self-actualization, and therefore far from reaching the pinnacle of the state described by Maslow. However, even at this early age the data serve as an indicator of which students are on a path toward self-transcendence as a result of the motivational drive for growth and expansion through new perspectives. Delving into this aspect of transcendence development may provide an additional educational pathway from which to encourage a student's self-engagement and self-expansion, and will be discussed later in this chapter. However, before exploring further methods of impacting one's level of self-engagement, there is still more to be said about the new representation of self-transcendence from Figure 5.2.

The bidirectional relationship between IVO and SE has been reframed as a self-enhancing cycle, so there is an impact of intrinsic self-esteem on this self-expansion, as well as the converse of self-expansion on intrinsic self-esteem. It is within this cycle itself that the emergence of self-transcendence can be understood. Comprehending the interchange between intrinsic sources of self-worth and growth can be summarized well in quotes from high scoring participants in chapter four. In effect, the self-actualizing person's obsession over continual growth forces one to define "self" as something beyond one's own individual capacities and talents. That is, the amount of growth an individual can experience is limited by the degree to which that person encapsulates his or her own self-view as an isolated and separate entity in the world or universe. Returning to the analogy offered in chapter two, remember that the growth needs can be thought of as an expanding balloon. Continuing with this depiction; whereas the balloon may be unlimited in size, it may still be restricted if inflated while within a more rigid container, such as a fishbowl. That is, a person may be driven toward continual self-expansion, but ultimately limited by the boundaries of the self as a singularly distinct human being. For a growth-centered individual this causes an inherent dilemma as growth itself is the driving motivation, and it is a

craving without end. However, the self-actualizing mind has ingeniously found a solution to this problem; abolish the fishbowl all together. By viewing the self as an expanded integration of family, community, and world, their growth can continue unhindered. Maslow accounts for this process of self-extension in explaining that:

> . . . their potentialities and capacities, their talents, their latent resources, their creative impulses, their needs to know themselves and to become more and more integrated and unified, more and more aware of what they really are, of what they really want, of what their call or vocation or fate is to be (1968, p. 32)
>
> It is just this person, in whom ego-strength is at its height, who most easily forgets or transcends the ego, who can be most problem-centered, most self-forgetful, most spontaneous in his activities (1968, p. 34).

For the self-expanding person, growth is neither omni-directional nor haphazardly aimed, but rather toward a maximization of intrinsic talents and creative drives. In the process of cultivating their internal potentials, they then utilize their skills and passions to further connect with community and affiliations. Applying these self-actualized revelations back toward the satisfactions of intrinsic dimensions of self-worth, may serve two motivational functions. It firstly provides a direct and salient method of maximizing self-esteem as a level of need, which would unremarkably be expected from self-determination theory (Deci & Ryan, 1985). However, what may be new theoretical insight is the possibility that garnering intrinsic self-worth requires the engagement of not just the self-esteem need, but also the self-actualization need in order to be fully realized. Secondly, utilizing one's internal self-growth to connect intrinsically with community and affiliations, appears to provide an avenue from which to expand the boundaries of the self (removing the fishbowl). Such an enlargement may then provide more pathways for further intrinsic self-exploration and growth. Although, the degree of self-expansion from community is likely dependent on the support given by members of those communities for an individual's growth (Sheldon & McGregor, 2000). For instance, one may work to cultivate his or her skill as a painter and support the community through that, but if one's family and school culture does not value artistic ability, then the benefits of self-expansion may not be realized. However, assuming that the individual is immersed in a supportive communal environment, a cycle of self-expansion and intrinsic growth can occur.

Therefore, if one is able to spiral through this ever-enhancing cycle of expansion and growth, there may be no limit to how wide an individual's self-concept can spread. Self, being initially seen as a separate "I" passes to greater, more expansive, and inclusive definitions which may ontologically swell to perceptions which encompass the whole of humanity, Nature, or even the cosmos. That is, the maximization of this cycle between intrinsic self-esteem and self-actualizing engagement *is* self-transcendence, depicted in Figure 5.3.

Such an assertion has considerable theoretical and empirical ramifications. Firstly, it provides clear solution the paradox of ego in self-transcendence. As Maslow noted, the self-actualizing person possesses the highest levels of ego-strength. Yet, there a generalized acceptance that transcendence is predicated on overcoming ego. In the most literal sense, the Freudian term "ego" derives from Latin word for "I." If the self-transcendent person necessarily possesses a strong Freudian (1933) ego ("I"), how does this initiate some passage into a superordinate *nobis* ("We")? Ego-strength can be thought of as a description of some strongly individualized "I." Specifically, it is a secure self-concept that is aware of intrinsic motivations and desires (an extension of Freud's id), while also being undaunted by the extrinsic social forces which demand conformity at the expense of the "I" (an extension of Freud's super-ego). With this conceptualization in mind, a clear solution to this paradox emerges. The intrinsic growth-expansion cycle (Figure 5.3) suggests that ego is not being overcome or transcended in some ascendantly hierarchical fashion. In contradiction to this colloquial notion, ego-strength appears to be critical to transcendence, as it is not ego that is being transcended in the process, but rather the boundaries of self-concept which limit ego to the singularity of the individual, "I". Unfortunately, these isolated egos are too often referred to as "big," while humbly interconnected ones are deemed "small." Such a linguistic misnomer, may be the source of this perceived paradox as it appears that transcendence necessitates the largest and most encompassing ego possible. In his description of the self-transcendent person, Maslow (1972) illustrates this state by stating that, "It implies also a wider circle of identification, i.e., with more and more and more people approaching the limit of identification with all human beings. This can also be phrased as the more and more inclusive Self" (p. 262). The only contradiction offered by the definition of TOW presented here is that the limit of ontological identification is not all human beings, but more widely a cosmic identification, which would be the limit of cognitive abstraction. Such a process is dependent on an interchange between growing intrinsic self-understanding within a supportive community, and enacting an intrinsically actualized self-within a community. Extrinsic values are not theoretically found within this cycle, neither negatively or

positively. As a result, this may explain the non-existent correlation among extrinsic dimensions and the other model dimension for SE and TOW. That is not to say that intrinsic and extrinsic valuation are orthogonal in nature. Previous research has well established an inverse relationship between them, and indeed that was seen in this data as well (Kasser & Ryan, 1993; 1996; Ryan & Deci, 2000; Sheldon & McGregor, 2000). Mean correlated scores for within inventory dimensional comparison showed similar negative correlations to past studies. However, this did not propagate into the transcendence model investigated in this research, which would be expected given this growth-expansion cycle conceptualization of transcendence development. Finally, if self-transcendence is merely the maximization of the interchange between the two levels of need, then there are two potential intervention points which could enhance or hinder the development process. In contrast to this researcher's earlier assumption that growing intrinsic methods of gaining self-esteem will naturally propel one into self-transcendence, there appears to be a second point of stunting at the self-actualization level, as measured by SE. Inhibition at this level, would necessitate a situation where it was possible to strongly value community and affiliation, but be unable to engage effectively in the growth-expansion cycle toward transcendence. This outcome was seen in the qualitative data as the third, unexpected, type of low-scoring student: The Self-Limiters.

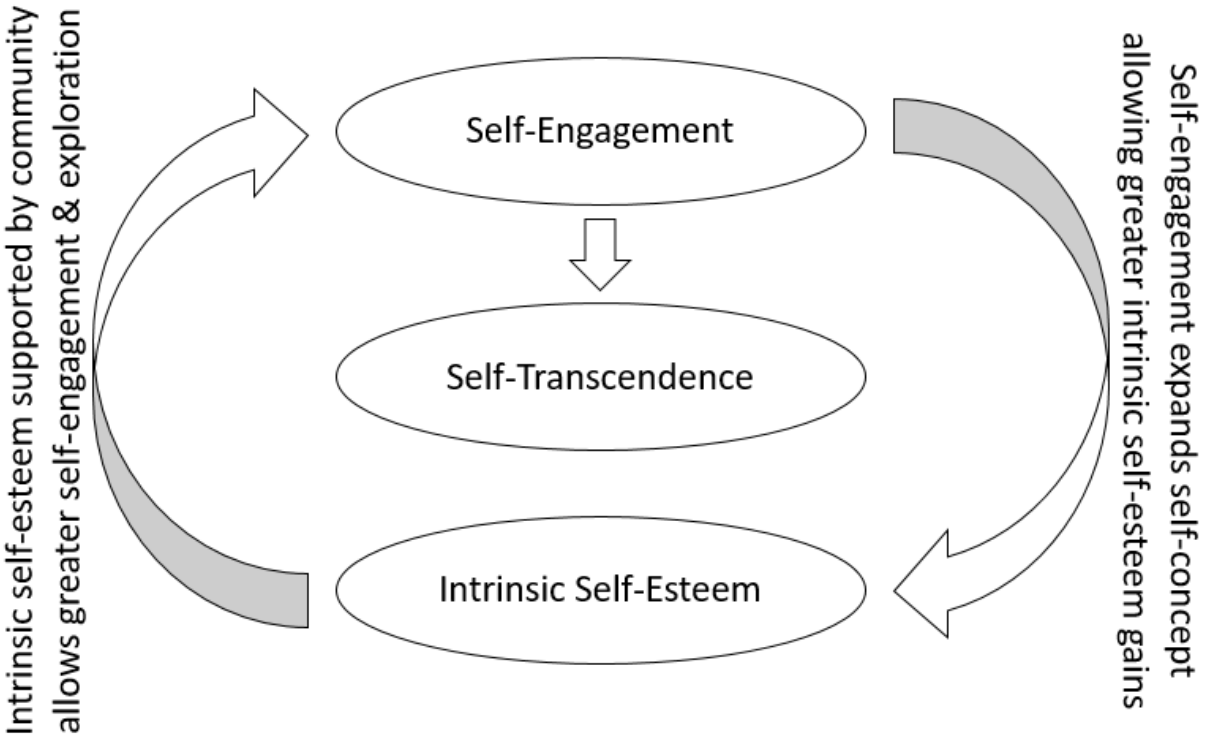

Figure 5.3. Intrinsic Growth-Expansion Cycle

Extrinsic Validation-Conformity Cycle. The above theoretical derivation well explains the positive development of self-transcendence within the current motivational framework and empirical data sample. However, this is only half of the analysis, or more accurately a third, given that three motivational types were identified during qualitative analysis. In this section, the expected participant type of the highly extrinsic "Validation-Seeker" is explored for potential theoretical implications. The perspective of the Validation-Seeker can be well expressed by quotes in the previous chapter. For these individuals, and likely many others, self-worth derives from procuring social recognition from others in order to establish or maintain relationships. From this perspective, there are culturally acceptable ways to achieve success, and this success garners positive connections with others. The disheartening converse of this life view is that since connection is based an ability to be successful, failure, or even a mild lack of success, could mean disconnection, isolation, and ostracization. In Maslovian terms, those driven primarily by extrinsic means are deficiency focused, meaning that their self-esteem, as well as their love and support from others, is a limited and unstable commodity which would vanish the moment their success wanes. As such, they must protect and defend their success and social status at all cost. For these individuals, growth and expansion were not a major topic of discussion. Instead their primary theme centered upon a general feeling of disconnection, and the extrinsic means by which to establish some assembly of personal relationships. Whereas, these extrinsic respondents conformed highly to theoretical expectations, the repeated linkage they drew between their extrinsic success and maintaining personal connections provided some new insight. The type of connection these individuals were describing was that associated with Maslow's love and belonging level of need. This suggests that as with the coupling of intrinsic self-esteem with self-actualization, there also appears to be a coupling between extrinsic self-esteem and love & belonging. Of course, these extrinsic valuations drive actions for fulfilling self-esteem as a goal in itself, but seem to serve the additional purpose of maintaining connection with others, whose affection is seen as dependent on success and conformity. Whether the individual's relationships and community connections are truly dependent on this may or may not be accurate. Under the condition that there is some validity to this perception, another cyclical relation may be established. That is, success and conformity to cultural and community expectations provide acceptance and belonging. In turn, greater acceptance by the community pushes the individual toward further success and conformity. A representation of this validation-conformity cycle is shown in Figure 5.4. Such a bidirectional system of reinforcement is in keeping with other previous research into extrinsic valuations, and their internalization (Kasser & Ryan, 1993; 1996; Ryan & Deci, 2000).

More will be discussed about this process later under the Family Education and Parenting Styles section, however, some general conclusions about the role of community can be drawn by the comparison between Growth-Seekers and the Validation-Seekers. Most simply, a community must nurture and support an individual's development of their intrinsic potential. This necessarily means allowing a person, particularly children, the opportunity to explore hobbies, interests, identities, and beliefs to gain self-understanding and self-awareness of what intrinsically resonates with them. An open-community such as this would consequently need to allow the person some liberty for adventure and risk-taking to engage in these explorations. Further, discouragement of explorations should be avoided, as it may shut down potentially viable intrinsic paths before the person has a chance to gain full awareness of them. Such disparagement may also take the form of rigid conformity which demands an individual entertain only specific identities and beliefs, and disallow others as culturally unacceptable or even shameful.

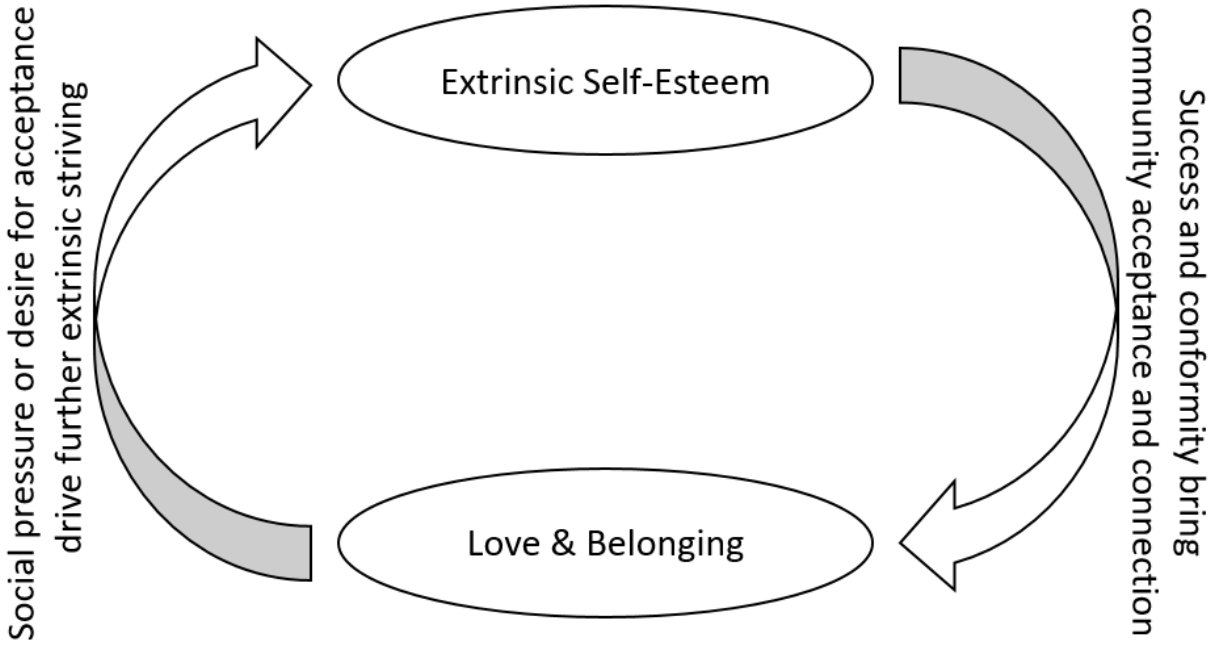

Figure 5.4. Extrinsic Validation-Conformity Cycle

The Self-Limiter's Broken Cycle. Potentially of more interest in the low-scoring group were those classified as Self-Limiters. These are individuals who valued and sought intrinsic methods of achieving self-esteem, but were unable to cultivate their intrinsic selves toward self-actualization. Even though a prime characteristic of adolescence is the belief in one's exceptionality, both positively and negatively (Aalsma et al., 2006; Elkind, 1967), the Self-Limiters manifested this in a unique and extreme

manner. Whereas, they were able to easily identify and celebrate the intrinsic uniqueness of others, they saw themselves as exceptions who were fundamentally limited in their talents and capability to grow. Examples of this are easily seen in the qualitative Self-Limiter data from chapter four. The cause of this self-limitation varied among the interviewees including, being naturally lazy and incapable of achieving because of this intrinsic laziness, missing the opportunity to develop intrinsic talent as this can only happen very early in childhood, and having a psychologically traumatic upbringing which restricts any further development. Regardless of the narrative explanation, all respondents were weaving similar limited self-concepts. Such a self-view appeared to break the intrinsic growth-expansion cycle which could have otherwise flourished. Even though these individuals were attempting to gain self-esteem through community and affiliations, this did not lead to any self-expansion or reflective self-engagement. For the Self-Limiter, there would be no purpose in indulging in such pursuits, since an arbitrary boundary had been erected which they cannot expand beyond. In the case of the Growth-Seeker type, the symbolic dilemma to be overcome was how to continue to expand the self beyond the "fishbowl" of an individual and separate self. However, the Self-Limiter never approaches this fishbowl dilemma as they have already defined boundaries which are well within this fishbowl. Curiously, all interviewees appeared ardent in their position that they were limited exceptionalities, and sought to maintain that personal narrative despite its destructive nature. Indeed, they were able to articulate this self-perspective as detrimental and something that should be "worked on" or overcome, but contradictorily felt there was nothing they could do to change it as if it were some immutable truth.

Summary: Research Question One. To restate the first research question:

> How well does the transcendence educational path model explain variations among the three variables of IVO, THO, and TOW?

Two of the three variables explored within this research performed well and as expected theoretically; IVO and TOW. Appropriate and valid factor measures were justifiably established for both of these constructs using the copious self-report data procured from the 167 adolescent participants. However, the third variable, THO, did show correlations that conformed to theory, but failed to situate itself within the model's path structure. Instead, it appears that the unanticipated construct of SE sits within this same position in the path, with a present-orientation acting only as a moderating influence on SE. Further, two changes were made to the path structure of the model based on Structural Equation Modeling (SEM) fit measures. 1) IVO and SE have a bidirectional relationship, and 2) IVO has

no direct impact on TOW and is instead mediated fully by SE. The necessity for this restructuring was the result of not fully exploring the self-actualization need nor its relationship to THO as a manifestation of motivational needs. Each of the three variables IVO, SE, and TOW are representative of a different level of motivational need with SE connected with self-actualization. The influence of self-actualization on the theoretical model had been assumed negligible when constructing the theory, but this implicit assumption was inaccurate. Qualitative interviews suggest that transcendence development may be impeded by the expected extrinsic valuations, and also a restricted self-concept at the self-actualization need level. Additionally, path analysis and interviews indicate that there is a self-enhancing cycle between self-esteem and self-actualization. The maximization of this cycle when unconstrained produces Maslow's highest need level of self-transcendence.

Empathy as a Transcendence Outcome

Though there were a number of variables and outcomes related to the transcendence development process, the data suggests that model variables correlated strongest with empathy. Again, this study did not establish a causal direction for the correlations with empathy, but the proceeding discussion assumes that empathy is a product of the transcendence development process. Examining the correlations in Table 4.17, empathy demonstrated the strongest association with the intrinsic values of community and affiliation, $r > 0.50$, which parallels previous research (Sheldon & Kasser, 1995). The two dimensions of SE showed the lowest correlation with empathy, as they are both, by definition, self-focused aspects of development. Further, the result of the interaction between self-knowledge and intrinsic valuations result in strong empathy correlations in the transcendence variable.

Given the high correlation of empathy near the beginning of the transcendence development process, it may be possible that it is an inevitable byproduct of development rather than an intentional aim. That is, as previously discussed, self-actualizing self-transcendent individuals crave expansion and growth, and seek means to pursue that unstable motivation. In order for transcendent ontology to grow unrestricted, these people must focus their efforts on expanding the self into wider and wider circles of identification (Maslow, 1972). This is accomplished motivationally through increased valuation of community and relationships. As a result, the encompassing of self into ever-expanding communities and relational connections necessitate the development of empathy. Therefore, since the intrinsic-growth cycle, Figure 5.3, is a self-enhancing process, the more intrinsic valuation and self-engagement that one engenders, the greater their empathy may become.

For adolescents the development of empathy can be a crucial aspect of healthy identity development and behavioral outcomes. Liable, Carlo, and Roesch (2004) demonstrated that empathy was significantly related to decreased aggressive behavior in females, and positive social behavior for both genders. Additionally, a study conducted by Eisenberg-Berg and Mussen (1978) showed a significant correlation between prosocial moral reasoning and empathy for males and females. If this empathy is the result of the intrinsic valuations of community and affiliations, then school curriculums ought to integrate intrinsic growth more directly into their structure. As the world population continues to grow exponentially, and individuals must live in more congested societies, the potential impact on their social and physical environment become inflated as well. A systematic educational focus on the development of empathy and intrinsic valuations could help to mitigate the negative effects that humanity is currently enacting throughout civilization and Nature. Indeed, those who possess decreased extrinsic valuation have demonstrated greater concern for the environment and the well-fare of others (Abramson & Inglehart, 1995; Kasser & Ryan, 1993; Schwartz, 1996).

The treatment course developed in this study could aid in that educational pursuit. However, some modifications would be needed. Even though significant correlations were seen across all model variables, the treatment course did not produce any significant relationship with empathy. The course only demonstrated a correlation with TOW itself, and not with any other model dimension, therefore, the lack of correlation with empathy would be expected. If empathy is primarily the result of intrinsic value expansion, and the treatment did not leave a lasting mark on this model construct, then empathy would be unaffected as well. In adapting the course for future implementation, more attention must be given to internalizing intrinsic valuations so that the course content provides a long-term impact that may spread to outcome variables such as empathy. A method of accomplishing this may include the incorporation of more diverse cultural perspectives, as discussed in the educational modification section below.

Family Education & Parenting Style

Though not surprising, one of the most interesting results of this study was the impact of family education on one's ability to reach Maslow's higher levels of need. As discussed previously, the demographics questionnaire included three questions which directly asked how much the adolescents were supported or encouraged by their family to develop the three variables of interest; EVO, THO, and TOW. Consistently, the family education factor demonstrated some of the highest correlations among model variables. For most adolescents, this primarily refers to their parents, and was supported by the

qualitative interviews. In every interview, students credited their parents' treatment of them with the trajectory of their development, for better or worse. Given the young age of participants, and the limited number of influencing experiences they've had outside of their family, it likely holds that parental exposure would have the greatest effect on transcendence development thus far. As such, it may be advantageous to investigate how diverse parenting styles direct adolescents toward the three development types identified in the research. Indeed, understanding such influences may aid in illuminating paths of intervention for both students and their parents.

In order to establish a useful perspective for interpreting results which incorporate parenting style, it was fruitful to remain within the motivational self-determination framework from which the entirety of this study was based. Indeed, parental influence on development is one of the core components of the origination of the theory, and much research has been done to validate and expand upon the assertions made by early authors (Deci & Ryan, 1985; Rogers, 1951). The core quandary which the self-determination perspective attempts to answer is, how do children attain the motivation and values to behave in ways which parents desire? The key concept within self-determination theory's view of parenting is conditional regard versus unconditional regard. The specific terminology used by researchers in this area tends to be varied and somewhat inconsistent, but tend to refer to these two broad categories. Unconditional regard is an approach in which parents or caregivers provide consistent and unwavering positive support and affection, which is not based on the child's performance, success, or conformity to expectations. This tends to involve a strategy of Parental Autonomous Support (PAS) where children are engaged with rationally, having the motivations of parental expectations discussed and children's feelings openly acknowledged. This type of interaction gives the child a sense of free choice and a decrease in internal pressure to arbitrarily conform. In turn, children are left feeling emboldened to "act in non-constricted and exploratory ways, responding to available information in a curious and non-defensive way" (Roth, Niemiec, Ryan, & Deci, 2009, p. 1121). It should be apparent that this parenting style is closely associated with outcomes that align with intrinsic and Growth-Seeking persons. Critically important to the behavioral functioning of these individuals is that they are driven toward curious exploration of the world, which establishes an internal motivational foundation which breeds a desire for self-actualization and personal growth. The lack of fear associated with such an exploratory mindset is garnered by the effect that unconditional regard buffers self-esteem from feelings such as shame, insecurity, and powerlessness by providing an intrinsic sense of valuableness during moments of upset and setback (Brummelman et al., 2014).

In contrast to this positive developmental trajectory, conditional regard can be explained as a parenting strategy in which children are only shown love, affection, and acceptance when they perform and conform to parental expectations. The enactment of this strategy tends to be domain specific, but can ultimately have global consequences (Assor, Roth, & Deci, 2004). There is some disagreement as to whether conditional regard is an acceptable method of parenting given its mixed results. That is, the use of conditional regard does appear to produce the desired outcomes which parents are hoping for in the form of internalized behaviors and values, but also creates a number of emotional and psychological difficulties (Assor, & Roth, 2012; Israeli-Halevi, Roth, & Assor, 2015; Kanat-Maymon, Roth, Assor, & Raizer, 2015; Perrone, Borelli, Smiley, Rasmussen, & Hilt, 2016; Roth & Assor, 2010). Anxiety, depression, parental closeness, self-esteem, emotional regulation, and romantic relationship quality are among some of the variables that appear to be negatively affected by the use of conditional regard. This indicates a possible originating source for validation-conformity cycle seen in the extrinsic participants interviewed in this study. The practice of only providing positive support to children when they are successful or conforming to expectations, creates an internal link between love and acceptance, and achievement. Since failing to achieve may result in a revocation of acceptance and support, the motivation to achieve remains strong, but also induces a state of perpetual fear and anxiety over maintaining success and acceptance.

In order to discuss the consequences of conditional regard further, it is necessary to delineate between two types of conditional regard, Parental Conditional Positive Regard (PCPR) and Parental Conditional Negative Regard (PCNR). There is a great plethora of research exploring the impact of conditional regard in general, but much less investigation into how these two subtypes produce differentiated outcomes. However, one such study conducted by Roth et al. (2009) did attempt to differentiate between the behavioral outcomes PCPR and PCNR. Analogous to operant conditioning's positive reinforcement, PCPR is the addition of attention, affection, and praise only when a child performs to expectations and is successful or conforming. This is seen as a quasi-supportive strategy as it provides a child with an avenue to gain and maintain parental affections. However, given that this support is conditioned on domain specific achievements and conformity, it tends not to produce truly autonomous and intrinsic motivation, as maintaining love and acceptance is dependent on obedience. The result is a type of extrinsic motivation that promotes introjected regulation (Ryan & Deci, 2000). This variety of extrinsic motivation is considered controlled in that the child or individual will not develop an innately curious and exploratory mindset, as their paths of growth and expansion are limited

by a few extrinsic prescribed options. Further, to deviate from these paths would results in the loss of affection and support leading to a lack of autonomous motivation. This description given by PCPR correlates well with this research's theoretical expectation of the extrinsically motivated student, which was observed during qualitative interviews, the Validation Seeker. These extrinsically motivated students did appear to have goals which they wanted to attain, but they were specific to allowing them access to the attention and affection of others. The generally ubiquitous and omnidirectional expansion desires of the Growth-Seekers were not present. However, the PCPR process does appear at least to provide motivation and direction toward some goals, which is enough to satisfy deficiency focused pursuits of self-esteem.

Nevertheless, there still remains a need to explain the emergence of the third unanticipated student type, the Self-Limiter. Fortunately, the PCNP examined by Roth et al. (2009) directly addresses the development of the Self-Limiter. Akin to negative punishment, PCNP is the withdrawal of attention, affection, and acceptance when a child does not perform to expectations. Since this parenting strategy is highly punitive and controlling, the outcome tends to result in feelings of coercion and resentment by the child. These feelings then impede any enactment of the expectations which parents desire, and further may result in amotivation, a lack of focus, direction, and general motivation toward specific goals. Ryan and Deci (2000) explain this amotivation state as one in which the individual feels a lack of control over themselves and their ability to achieve motivated goals, leading to an absence of directionality and intent toward motivational pursuits. This parallels the observations made during the qualitative interviews for this study's research. Specifically, Self-Limiters consistently reported a belief that they had virtually no control over their own development and growth. Indeed, they rationalized this as an innate limitation on their capability to pursue and achieve goals. However, in contrast to the most extreme form of amotivation, the interviewees did express a desire to support their community and friends as intrinsic values, but felt they were incapable of doing this in any impactful or meaningful way. Instead, all self-limiting interviewees were unable to articulate a specific goal or intent by which they could contribute to community and friends; asserting that they could only offer a vague and nondescript supportive role to enhance the positive milieu of those around them.

Of course, it is likely that parents who engage in conditional regard practices utilize both PCPR and PCNR, but the predominance of one over the other leads to particular regulation, or non-regulation, styles by the child. Indeed, it may be possible that inconsistent parents even shift between unconditional regard and conditional regard depending on circumstance, domain, and developmental

time period. Such mixtures could produce degrees of amotivation, extrinsic, and intrinsic motivation in innumerable combination. Regardless, the factor model established in this research was able to distinguish between extrinsically or amotivational respondents versus intrinsically motivated ones, and by extension those who were raised with primarily conditional regard versus unconditional regard, respectively. Having identified a clear developmental source which directly addresses all three of the student types observed in the data, it provides validation that the study's results are accurate and consistent with previous research. However, given that students who may undertake a treatment course for transcendence development cannot typically chose their home environment, and return to that environment after each class session. The impact of conditional regard has had strong negative effects particularly during early adolescence, and this conditionally supportive home environment may mitigate or retard the effects of any treatment course, regardless of its quality (Assor & Tal, 2012; Israeli-Halevi et al., 2015).

Destructive home environments may serve to counteract the impact of an individual course in transcendence development, but it highlights the need for the school to provide a healthy and safe space for students to engage in positive development such as intrinsic introspection, identity experimentation, and other growth-focused activities. Since their home life cannot provide the type of unconditional regard necessary for transcendence development, it becomes incumbent upon the school and its staff to offer some semblance of unconditional support for the student's growth. During adolescent development, along with seeking greater peer relationships and acceptance, teens often desire to grow connections with other adults beyond their parents (Roeser, Eccles, & Sameroff, 1998). This drive for adult relations can be leveraged by school faculty and staff to give students the kind of support and attention they are deprived of at home. Along with unconditioned acceptance within the school environment, both individual faculty and the institutional structure itself could be focused on providing autonomy support. That is, providing opportunities for students to openly explore and make meaningful decisions about their experiences within the school (Roeser et al., 1998). Such an approach may run counter to the traditional view of schooling as authoritarian and demanding absolute conformity to school standards and expectations. Supporting students through autonomous exploration in a safe environment may provide them with intrinsic self-knowledge that would otherwise have remained buried due to motivational efforts to either avoid failure at all costs (Self-Limiters), or anxiously and extrinsically pursue success to gain social acceptance (Validation Seekers). Further, students who gain a positive identification with their school tend to take on the values and expectations

of that school (Eccles & Midgley, 1989). As such, any school which promotes autonomy, unconditional support, and intrinsic self-exploration would necessarily be steeped in a culture of acceptance and empathy in order to achieve those community goals. In turn, students may internalize those values into their developing identity, creating even greater feelings of safety and support at all levels of the school environment. This type of interaction has tremendous power to influence the lives and trajectories of adolescents by providing a buffer against negative elements in their home environments. Such a description well encapsulates the educational perspective of the Buddhist school used in this study. Indeed, this feeling of safety and autonomy was expressed to some degree by a number of interviewees, however, the intense account of this came from one of the self-limiting students who explained:

> I'd say coming to [this school]. Like it's really changed my life. oh my gosh! Like I wish I could write the song you know. And I just don't think about it as much, but I can't say how grateful I am to be here and to have met the people I know. And, just the community. You know it's so different from my past schools and. I'd say it's really helped me, a lot, you know. This is probably one of the biggest impacts in my life. And since the community is so small, I feel as if we're a family and, you know, it's just so...it's like a little perfect school, even though it's not perfect, you know. It's like perfect. And, I think that without [this school] I wouldn't...I would not be the same person I am today. I wouldn't be so open and I wouldn't be, you know, I don't even know if I'd be alive, because when I was at my past school... Oh!... Things were getting bad! That's when my mom was like drinking is getting drunk every single night. And she was driving me to school while she wasn't even sober, you know. And my depression was really bad. Like I didn't talk to anybody and every single morning walking up to my class felt like I was carrying like 100 pound chains on my feet, and it was just a big dark cloud. And now I'm coming to school like I don't even mind getting here at 6 a.m. every morning, you know. Like I get up at 5-5:20 in the morning and then I get here at 6:00 and you know I don't mind. But if I have to do that at my old school I would... would not do it. I would just, you know, you know, I used to even tell my parents that I was sick even when I wasn't. And I would stay sick for weeks and weeks. And I was failing all my classes, you know. I gave up on everything and I didn't talk to anybody. And I did have a couple of friends but they don't have depression so they wouldn't understand and I don't want to take time out of their day to talk about me, you know. So, here when I miss a day I feel really sad, you know. I want to be at school. Like, when I'm sick I feel like "oh man," I want to go to school but I don't want to get people sick, you know.

Research Question Two

Research question two asked,

> To what degree does sustained and focused education toward a) unseating one's socialized worldview, b) establishing intrinsic self-esteem, and c) a present-time orientation increase a student's average experience of a TOW?

Unfortunately, it is a greater challenge to address the validation of the second research question, as there was less data available from which to draw conclusions. Indeed, as was discussed in chapter four, longitudinal analysis failed to produce any meaningful results due to methodical difficulties and only having two waves of data. Thankfully, enough students had previously taken the treatment course to provide correlative data. That is, those who had taken the treatment course showed a strong significant correction in transcendence development versus those who had not, on both waves of data. However, no other model variable demonstrated this correlation, which is perplexing given the path model established for transcendence development. There are at least three possible explanations for why TOW showed a correlation, but IVO, SE, and present orientation did not. 1) The model could be representing an unrealistic process; a case not well supported given the high goodness-of-fit number seen in the examined path model. 2) The course may be directly affecting TOW or acting through some alternative process not modeled or tested. This possibility exists within any theoretical explanation of data that does not account for 100% of the variance. There can always be some hidden process or set of variables which are outside the framework or anticipated factors. However, decreasing the probability of this cause requires intentional testing of alternative hypotheses, which is beyond the scope of this research. 3) The course impacts TOW in a lasting manner, yet IVO and SE revert to a less developed level due to greater mutability and susceptibility to change. That is, the ontology of transcendence is mostly a one-way process that is resistant to reversal, but IVO and SE do not share such a resistance. There is some likelihood that this is the case, given the time lag from treatment to measurement. The treatment course was taught for three consecutive years, with data only being collected in that third year. As such, two of the treatment cohorts had considerable amounts of time to be impacted by other life experiences which mitigated the influence of the course on their levels of IVO and SE. As discussed in the previous section on the effects of parenting style, such an outcome may be especially true if the student was returning to an environment that was antithetical to the desired growth of the course.

It should further be made clear that the course design centered around affecting one's present-time orientation and not SE. As such, the potential power of the treatment to affect model variables may have been diminished. Present-orientation appears to act as a moderator in the process, but direct intervention in the SE construct would have likely produced greater effects. Indeed, since SE acts within a self-enhancing cycle with IVO, not addressing its development directly could have contributed to the poor persistence of treatment effects for these variables compared to TOW. As such, the following section discusses potential modifications and enhances which could be introduced to maximize the effectively of a transcendence development course.

Educational Modifications

Given the necessary modification to the transcendence development model and the revelation of three distinct motivational types of student, it is prudent to explore additional educational methods which can be leveraged to incorporate these new findings, and hopefully improve the degree of development. This will be broken into two areas seen within the data; increasing diversity exposure through Intercultural Awareness (IA) education, and overcoming limited self-concepts through Dweck's self-theory (2000) and its associated educational paradigm of "growth mindset" (Dweck, 2010).

The later of these two areas, self-theories, relates directly to some of the types of participants identified during this study's analysis. According to self-theories every individual possesses implicit lay theories of how intelligence, talent, and growth occur during development and education. These broadly fall under two considerably divergent views of entity theory and incremental theory (Dweck & Leggett, 1988). Entity theorists maintain the view that intelligence, talents, and general capabilities are innate and relatively immutable. These are individuals who believe a person is either born with intelligence and talent, or they're not; a static entity. Conversely, incremental theorists perceive intelligence and talents as capable of change and growth. From this perspective, becoming proficient and skillful is not a matter of intrinsic ability, but rather requires continual effort and persistence to cultivate. These two theoretical lay views are applied to intelligence and academic success, but originate from a general perspective about one's capacity for self-growth, cultivation, and expansion (Molden & Dweck, 2006). This is akin to what was observed in the participant data for this research.

Incremental theorists appear to be closely associated with the Growth-Seeker type. However, there is one fundamental difference between these two; incremental self-theory directly addresses self-concept of typical learners, whereas the theory proposed here is a global motivational theory and speaks to what

drives an individual toward certain goals and behaviors. As such, Growth-Seekers not only hold an incremental self-view, but possess an intrinsic drive to grow, expand, and actualize their capacities. Further, those who demonstrate this view of developmental capacities are significantly more likely to engage in self-improvement to repair damaged self-esteem (Nussbaum & Dweck, 2008), make greater effort when faced with challenging work (Hong, Chiu, Dweck, Lin, & Wan, 1999), and general academic achievement (Blackwell, Trzesniewski, & Dweck, 2007). Dweck and colleagues have repeatedly shown through research that incremental theorists respond to defeat, failure, and challenge in academics with directed effort to learn and overcome the obstacles presented to them. This may explain the significant correlation found between the student's Grade Point Average and their transcendence development score in this study. Indeed, two of the Growth-Seeking students interviewed were first in their class, and all were high academic achievers. Contrasting this resilient self-concept, the entity theorists display a number of negative traits. These individuals tend to respond to failure and difficult challenges with defensiveness and retractions, thereby, ignoring or avoiding remediating efforts to improve (Hong et al., 1999; Nussbaum & Dweck, 2008). These types of responses do seem to be similar to those who scored low on transcendence measures, however, two differentiated types of low-scoring individuals were identified, which makes direct associations more difficult. Both the Validation-Seekers and the Self-Limiters manifested conceptions which related to entity theory, but there were characteristic differences in how these manifestations appeared in the qualitative data. For instance, Self-Limiters held entity theories for the entirety of themselves as an exceptionality, but perceived others as having incremental growth abilities to improve, however, this was not seen in the Validation-Seekers. For these individuals, it appears that their intelligence and talent views were more equitable, but also domain specific. That is, they tend to believe that one can improve and grow in some areas, but not in others. There is still a component of innate ability, but as long as one possesses some level of this intrinsic talent, it can be honed and cultivated. Nevertheless, the scope of areas to which a person might have natural abilities is extremely limited.

Regardless, of the scope and universality of their lay theories, both the Validation-Seekers and the Self-Limiters, appear to result in the same outcome, a limitation in the extent to which they are willing to engage in risk-taking efforts toward exploration and expansion. In an effort to address the negative cognitive and behavioral impacts of an entity theory perspective, Dweck (2010) has created an educational approach coined "growth mindset." The paradigm of growth mindset is to directly address the root cause of the entity theory perspective by teaching students the neuroscience and psychology of

human intelligence. Through this curriculum, students are forced to confront the wealth of empirical scientific research which disconfirms their belief in an immutable self-concept. Like transformative learning, this educational structure seeks to unseat one's taken-for-granted assumptions, but in this case they are the assumptions of one's inward looking worldview about the self. In many ways, this research's treatment course already engaged in some levels of growth mindset, but not towards the same aim as Dweck. That is, in order to increase the student's lived experience of TOW, they were directly taught the psychology and neuroscience of the transcendence process and given opportunities to examine these concepts through self-reflection and emotional case studies. Modifying the existing curriculum to include empirical research into entity and incremental theories of intelligence would be a natural extension of what is already in place. The time allotted for this course will remain the same in the future, which means some elements may need to be emphasized. One such element may be the THO variable, since it appears to only be a moderator in the process, and students are exposed to these concepts elsewhere in the school environment. Shift from a focus on THO to growth mindset, may allow for more direct manipulation of the SE construct, and thereby open students up to greater intrinsic influence toward transcendence development. This course reorientation may be additionally beneficial for the second modification point identified.

To address this second educational expansion, the development of IA is inherently a transformative process, and proponents of Transformative Learning Theory (TLT) have attempted to approach intercultural education from this perspective. Exploring IA from a TLT framework is beneficial as it naturally conforms to the course development already created. Further, transformative IA shares a number of similarities with the transcendence development process. Christensen (1989) described an individual who has attained the highest state of IA as having:

> . . . a sense of being at peace with oneself and others in one's world. . . . It is the ability to perceive fundamental human qualities as unifying dimensions, transcending existing differences. . . . there is no longer a need to try to be accepting and understanding toward dissimilar groups. The individual is constantly aware of human similarities while in the presence of others. But she or he is not unmindful of the unique qualities and life experiences of cultural, ethnic, and racial groups and the meaning societies associate with such differences. (p. 283)

Within this description of the apex of IA are strong parallels to Maslovian self-transcendence, described earlier in this chapter on pages 124-125. This commonality is certainly unsurprising given that both

processes seek to grow perspective by unseating culturally monolithic views and transform the individual into one who can better accommodate different worldviews and perspectives.

One of the first models that explored IA development from a transformational perspective was given by Taylor (1994), who today is one of the pioneering leaders in transformative learning. In this model, titled Intercultural Competence, he uses Mezirow's (1991) rational approach to explain transformation, hence the choice of term "competence." It is seen as a recursive process that ultimately leads to an evolving intercultural identity or expanded self-concept; characterized by changing personal values and worldview. This relates to self-transcendence development in that it requires a cyclic process that reforms worldview and self-concept to be more open and inclusive. In further relatedness to transcendence, Taylor specifically calls out cultural disequilibrium (disorienting dilemma) as the first step to development. It is through the desire to rectify this disequilibrium that one comes to be transformed. The process between these two involves self-reflection (self-reflexivity), and behavioral strategies that test conclusions to self-reflection. These strategies include a range of engagement possibilities from discussing concepts with friends and family, to immersing oneself within an unfamiliar cultural environment.

From this early and direct link to transformative learning, more complex and integrated models have arisen. One of the most notable modern developmental approaches is that of Bennett (1993). This six-stage model is broken into two broad categories, each comprised of three stages. As one's worldview and epistemology grows and expands, one moves from a more ethnocentric view to a more ethnorelative outlook. At the fifth level, in the ethnorelative phase, a person is said to be in:

> . . . the state in which the experience of another culture yields perception and behavior appropriate to that culture. One's worldview is expanded to include relevant constructs from other cultural worldviews. People . . . can engage in empathy –the ability to take perspective or shift frame of reference vis-à-vis other cultures. This shift is not merely cognitive; it is a change in the organization of lived experience, which necessarily includes affect and behavior. . . . If the process of frame shifting is deepened and habitualized, it becomes the basis of biculturality or multiculturality. (Bennett, 2004, pp. 7-8)

The connection is made clear here between empathy, the ability to unseat one's worldview, and the holistic understanding of the entire person. Of importance to Bennett's model is its foundation in cognitive flexibility which is a term that is closely related to self-reflexivity, but is seen here as a

developed capacity rather than a developed skill. Cognitive flexibility also plays a fundamental role in the development of moral reasoning skills according to Endicott et al. (2003). They layout an understanding of cognitive flexibility as a psychological capacity involved in both IA and moral reasoning. Therefore, by raising this capacity in one area, it necessarily will raise in the other. Their experiments validating this theory showed high correlations between reasoning skills and intercultural development. One of the most critical findings of their study was that depth of multicultural experience was more important than breadth. This indicates that educators should focus on teaching the richness of a few cultures rather than a wide survey of many. Therefore, for integration into the current transcendence development curriculum, in addition to teaching students to directly question their own cultural indoctrinations, they should be given the opportunity to contrast them with a deep exploration of a largely foreign culture value and belief system.

Lee & Greene (2004) posit that intercultural sensitivity and intercultural knowledge can be viewed as orthogonal components to awareness. They note that in actuality, these two are not uncorrelated, but that it is possible for one to develop without the other. As a result of this separation they break development into four "stances;" ethnocentrism, information, curiosity, and reflexivity. The stance of information is characterized by a high amount of knowledge related to how cultures behave and what they believe, but lacks a general affective desire to engage on a personal level with different peoples. These people also lack an understanding of how their own self-identities are influenced by cultural and historical factors. In this way, they cannot develop true self-reflexivity. In contrast, the stance of curiosity is excited and interested to interact with culturally different peoples, but lack the knowledge about how to effectively engage with them. It is only at the stance of reflexivity that one becomes interculturally aware. At this stage, a person is able to abstract themselves from their current worldview to see alternative perspectives, or at least be consciously aware of its influences over them. In short it takes knowledge, introspection, and affect to become truly intercultural. Save for specific cultural knowledge, much of this affective and introspective infrastructure was already put into place during the initial transcendence course design, so again it appears that integration IA could readily be achieved through content emphasis.

Limitations & Alternatives

This research study suffered from a number of limitations that impacted its scope and validity. Most glaringly, the method of quantitative data collection may be prone to erroneous conclusions. This was partially discussed in chapters three and four over attempts to establish convergent and

discriminant validity. For both the variable measures of TOW and THO, no previous piloted self-report inventories had been developed specifically for these constructs. As such, multiple related measures were used in the hopes of establishing correlative relationships among inventory dimensions. Later this same process was needed to build the unexpected factor structure of SE, which was not initially part of the theoretical expectation. Unfortunately, due to these inventories conflating the various constructs under investigation and not directly relating to theoretical variables it was necessary to perform item analysis and exploratory factor analysis to determine factors and relationships. Despite an attempt to approach these analyses from objective, statistical, and criteria-based construction methods that were justifiable under theory, there is the possibility of selection bias. That is, given the volume of inventory items available, only ones that showed strong correlation and would perform well in the model were selected for inclusion, effectively "cherry-picking" items to fit the model with unconscious bias, and stretching the theoretical justification beyond reasonable limits. This possibility was at the forefront of the researcher's mind throughout the analysis process, and was mitigated as much as possible by explicitly detailing the selection process, criteria, and justification, however, the possibility of selection bias cannot be ignored. Further, convergent validity may be in question for the construct of SE, as its factor structure was first established assuming it was the THO variable but later understood as relating to self-actualization and self-expansion. Another researcher looking at the data may conceive of this latent factor differently, and potentially not related to the self-actualization need level. In that eventually, the intrinsic growth-expansion cycle (Figure 5.2) may look considerably different. Within the bounds of the current data set, the only way to add credence to this research's analysis and interpretations would be to have additional independent analyses conducted by others familiar with the motivational literature of Maslow and self-determination theory, which is not feasible within the constraints of this study. Additionally related to the data collection and analysis, small sample size for those the quantitative and qualitative data may have resulted in missing or inaccurate conclusions. SEM generally requires large sample size to achieve confidence in the acceptance of the model, and 167 participants may have been insufficient to make meaningful inferences. Further, with only three to four qualitative interviews conducted per participant type, critical perspectives of each type may have been overlooked leading to imprecise descriptions of their worldview and motivations. Additional data collections should be accomplished to supplement the analysis of this first study, and mitigate the possibility of these errors.

More abstract limitations relate to a potential incompatibility between the primary construct of interest and the method used to explore its structure. Specifically, SEM path modeling is strictly a reductionistic method whose goal is to establish exclusively separate constructs, which interact only in discrete linear paths. When studying a concept such as transcendence, which by definition involves the dissolving of exclusively separate categories and boundaries, it may seem an odd choice to use SEM path modeling as the vehicle for exploration. This irony was not lost on the researcher and compensation for its limitation was attempted via the qualitative interviews, which proved invaluable in understanding the structural anomalies in the qualitative data. Nevertheless, a fundamental paradigm of this research, that IVO, SE, and TOW exist as intrinsically distinct constructs that can be engaged with independently, may be inherently flawed. Indeed, one begins to see the unraveling of this in the discussion above. That is, IVO and SE exist in an interlocked cycle of perpetual self-expansion whose maximization is itself self-transcendence. This reductionistic explanation for the interrelatedness of constructs does offer insight into the development process, but it remains an open question as to whether it is the most appropriate way to represent it.

Future Research

Moving forward with the validation and expansion of the theory developed here necessitates a number of further studies. Firstly, a specialized self-report inventory is needed to clearly establish reliable construct measures with strong content validity. Focus should be given to building and piloting an inventory that can achieve these results for all three constructs of IVO, SE, and TOW. Additionally, the current inventory items were unable to distinguish between the Validation-Seekers and the Self-Limiters, and any piloted transcendence inventory should be able to ascertain such a distinction. Although such an inventory may be useful with a particular age group, such as adolescents, it is unlikely to be an appropriate tool for comparing individuals at different stages of life. For instance, giving the inventory developed in this research to the elderly, and comparing it to adolescents is not likely to produce meaningful results due to a lack of instrument sensitivity and considerably divergent life perspectives and item interpretations. Nevertheless, a longitudinal study or a comparative study that examines self-transcendence development across lifespan would make an invaluable contribution to a fully realized picture of the process. Once a reliable and age appropriate inventory is available, greater refinement into understanding specific educational interventions and their impact on IVO and SE can be undertaken. From the research here it appears that exposure to different cultures, questioning social structures, and developing a present-time focus all help to foster greater self-transcendence, but these

are only three areas of limitless experiences which may provide similar or possibly greater results. Experimentation which compares the effectiveness of various approaches is needed to fully develop a comprehensive course for self-transcendence.

Further, a link was shown to exist between the three student types found in the data and the childrearing approaches taken by parents. However, this apparent connection was established based on the theoretical and qualitative similarity among their descriptions, but direct empirical correlation should be demonstrated to fully establish this relationship. Such an investigation would necessarily require the inclusion of not only students, but their parents as well. This could further shed light on the possible impact of parenting style on self-transcendence development. Indeed, if family upbringing has as strong an influence on transcendence development as the data suggests, it may be worth focusing educational efforts on parents as much as young adolescents. A possible avenue for research may be an examination into educating parents to the effects of the various parenting styles discussed above. Would parents who were given guidance adopt healthier and more beneficial approaches for their child, and could the outcome of that be measured in their children?

As a final area of research, it is critical to understand the universality of the self-transcendence process. That is, are the same processes and outcome seen in cross-cultural studies. Maslow's motivational theories as well as self-determination theory are assumed to be universal tenants of human existence, and by extension the theory developed here ought to also apply across cultures. However, such a grand claim would need to be validated by numerous cross-cultural studies. The Hawaiian Island adolescents who participated in this research offered only a single sample, despite having diverse ethnic representation. Additionally, historical research is of interest to the study of self-transcendence in that one would expect accounts of highly self-transcendent individuals throughout history and across cultures. Growth-Seekers are characterized by curiosity, self-expansion, confidence, positive risk-taking, and empathy. Individuals such as these may have often risen to historically notable positions, which could be identified through research. Of particular interest to education is the question of transcendence generation rates within various cultures. That is, were some societies more prone to developing highly self-transcendent individuals due to social structure, valuations, and education? If so, how do modern Western cultures compare to such transcendence generating cultures?

Importance of Theory

Before discussing the wider ramifications of this research, it is worthwhile to note the importance of the transcendence development theory itself. As mentioned in chapter one, for a theory to be considered scientific, it must be falsifiable (Popper, 1968). With a traditionally metaphysical conception of transcendence, it was important to maintain a realistic theory of transcendence that satisfied Popper's falsifiability condition. Indeed, a key aspect of the transcendence development model was falsified in the process of data collection and analysis; namely the role of THO. This was an exciting outcome as it allowed for correction and reconceptualization based on the data. Data was collected to offer a valid explanation and alteration of the theory so that it conforms with observation, which is ideally how the scientific process ought to function.

In the process of rectifying the theory, a more complete and robust description of transcendence and the motivational development process emerged. A stated goal of this research was to offer a process theory for the development of the self-transcendent person, as someone who would possess an intrinsically fulfilling and meaningfully interconnected life. This was accomplished through the investigation of the two research questions, however, the results and their contextualization additionally provided a conceptualization of what transcendence is fundamentally comprised of, resolved the paradox of ego in transcendence, and even suggested that the measures could be used as predictive tools for academic success, empathy, social dominance, and feelings of worthiness. The power of a theory that can fully explain temporal development, ontological composition of constructs, and provides predictive capabilities cannot be overemphasized, and the theory established through this research appears to accomplish all three of these.

Further, a significant benefit of this theory was its ability to integrate and synergize a number of previously disparate psychological theories. Initially, these included Maslovian motivation, self-determination theory, SST, TLT, and PTG. However, through the data driven adjustments in the theory, this list was expanded to include parental conditional regard, self-theories of capability, and intercultural development. This research's transcendence development theory now synergizes at least eight areas of social psychology and through this new bridge present new insights and connects among all. Again, social sciences are not necessarily seeking a theory-of-everything as the physical sciences do, but if the social world exists in whole or in part as an objective reality, then there should be a convergence across the literature, to which this theory takes major steps in achieving.

Implications & Conclusions

This dissertation research began with a goal of understanding if it was possible to abstract the growth process from PTG, and provide direct benefits to students without the need for severe trauma. This necessarily meant gaining deeper insight into the development process itself, which resulted in the modified Maslow's Hierarchy of Needs which included the integration of self-determination theory. As a stated significance of this research, it sought to bring together typically disparate areas of psychological research to uncover synergistic relationships among them. However, a positive consequence of the data results suggest that this synergistic integration of theory stretches beyond motivational theories and into perceived self-concepts, ego development, socio-emotional selectivity theory, adolescent development, IA, and parenting style. Revealing such strong commonalities across psychological areas greatly supports both the validity of the data results and the underlying theory which connects them. Indeed, this is an expansion of existing theories of human development, and any theory which encompasses such a grand scope across humanity ought to show robust linkages permeating the psychological landscape. Of course, psychological sciences are not interested in a social equivalent of the grand unified theory the same way the physical sciences are. Nevertheless, psychological and development theories ought to be predictively guiding researchers and educators toward common or complementary perspectives and practices. That is, there must be some measure objective generality in human development which research should be able to extract. Theory developed here and subsequent data results suggest a path for honing in on those generalities and best practices. Integration of the various theories presented in this dissertation may represent a major advance in the field if further experimentation can valid these connections.

Having a more unified picture of human development toward satisfying all Maslovian needs, including the higher growth needs, has the potential to transform and restructure society in a similar manner as the industrial age provided for civilization's material needs and reshaped the modern world. Ironically, this transformation will necessitate a shift away from a materialistic consumer-based vision of human flourishing, and more toward one which seeks to give every individual the opportunity to feel safe and supported in their communities, grow their intrinsic self-worth to maximize their inner potentials, and feel free to take risks of self-exploration to expand the self beyond its preconceived boundaries. This and other previous research have demonstrated a strong correlation between these traits and increased empathy, concern for other, psychological stability, higher academic achievement, greater intercultural understanding, and lower levels of narcissism and exploitation. Imagining a society

which intentionally and directedly inculcated such personalities and traits as a matter of course is relatively unimaginable at present, but a lack of imagination does not negate possibility.

Engendering a world that reflects the Roddenberrian future depicted in Star Trek, may indeed not just be possible, but probable given the progress bias to the flow of societal evolution. However, such grandiose advancement will likely require the mitigation of negative social tendencies, which at present are unfettered. The noted philosopher and avowed atheist Sam Harris has offered a number of troubling and controversial ideas in the past, but in a provocative Ted Talk (2010) he proposed a perspective of morality which aligns with this research's philosophical perspective. That is the perspective that scientific research can and does provide answers to moral questions, specifically how best do humans flourish and prosper, and what may hinder one's ability to thrive. Conclusions that one may surmise from this research are that parenting centered around conditional regard, monolithic worldviews, cultural isolation, unsupportive communities, artificially constrained self-views, and valuing of materialism all contribute to the impediment of human flourishing, and by extension, societal progress. Combating these hindrances while promoting healthy pro-social alternatives will require the combined force of the social will of the citizenry and government entities alike. Such an undertaking would necessitate a directed and societal-wide reeducation of the psychological underpinnings of materialism, parenting, self-esteem, and diversity. Some of these topics are comparatively easy to address through education, while others are so deeply entrenched in the cultural consciousness of communities that defensive reactions may initially overshadow attempts for education (Greenberg et al., 1990), and may appear as infringements to personal freedoms. Yet, with enough educational effort, empirical research, and data, even the most ardent dissenter may gain an objective eye to rise above social indoctrination.

Today, there is still a long road to travel between conducting fundamental psychological research and enacting sweeping educational policy reform across any society, yet every grand movement begins with meager steps to advance the understanding of the issues and take action, however small. To reiterate the motivating quote of this research, "I must study politics and war that my sons may have liberty to study mathematics and philosophy. My sons ought to study mathematics and philosophy. . . . commerce and agriculture in order to give their children a right to study painting, poetry, [and] music. . . ." (Adams, 1780). Adams understood that through knowledge each individual could grow to effect change on their world that would leave it in a better state for those to come. With every generation humanity teaches and learns a new set of cerebral skills that collectively propel the

arrow of progress further. Constructing a civilization whose collective aim is toward the ultimate heights of human flourishing has been ongoing for centuries if not millennia, but with the revelations of modern psychology, that process has been accelerated, and this dissertation research may provide key insights toward that acceleration.

Appendix A: Treatment Course Syllabus

Psychology of Peace & Conflict

Instructor: Steven P. James
Phone: ----------
Email: ----------

Textbook:
None

Course Description:

This course explores the experiences, motivation, and psychological factors which drive an individual toward empathetic, altruistic, and humble ways of being, and conversely toward greedy, disconnected, and arrogant ways. Through daily class discussions each student dives deeply into the psychological mechanisms and behavioral outcomes which result in peace or conflict centered individuals. These concepts will then be applied on a macro-level though group projects which redesigned societal institutions from the bottom-up. Beyond this, students will be encouraged to enhance their introspective and reflective capacities by applying class concepts to themselves in their own lives. The ultimate goal of this class is to bring about personal growth toward more peaceful living for themselves and others.

Course Questions:

1. What is the nature of humanity?
    a. How can modern psychology help answer this question?
    b. What drives a person toward or away from peaceful ways of living?
    c. How are we driven our motivations?
    d. What is the role of death and trauma in life?
2. How can We create a society which encourages peaceful ways of living?
    a. What do human beings need to flourish?
    b. What is wrong with our current society which discourages peaceful ways of living?
3. Who do you want to be? (Identity, beliefs, values, morals)
    a. Who are you today?
    b. Who do you need to be?
    c. How can you live better in order to develop the self you want to be?

Required Materials*:
Dedicated Notebook

*Students are required to bring these items with them to class every day.

Assignments:

1. Class Engagement – This constitutes a substantial portion of the class grade and amounts to approximately one percentage point per day of class. Factors which determine class engagement are A) preparedness for the day's lessons, B) Only using electronic devices at

appropriate times for appropriate purposes, C) not sleeping during lessons and videos, and D) Actively participating.

2. The only homework assignment for the class is the write reflective journals based on class content and particular journal prompts. When prompts are given, they are only meant to inspire deep introspective thought, and not to be answered directly. Each journal should be written as a cohesive narrative which fully develops the student's thoughts and ideas. Journals are assessed on the following criteria A) development of ideas, B) putting personal emotion into the writing (emotional vulnerability), C) tying course content to personal experience, D) and/or making larger connections to humanity, society, and life. Each journal should be no less than 1 page single spaced.
3. At the end of each course unit, concepts and ideas will be culminated and demonstrated through an in-class group project. The time allotted to complete each project will one to two class periods only, so groups should begin planning early. The projects will be assessed based on A) the group's ability to be creative in terms of thinking beyond traditional societal definitions and norms, and B) the group's ability to effectively incorporate class concepts into the projects. Please note that while these activities are fun and very open-ended, their primary purpose is to see how well students can demonstrate and apply understanding of course content.

Grading & Approximate Due Dates:

1. Class Engagement 40%
2. Reflective Journals 40%
3. Group Unit Activities 20%

Course Outline:

	Institution Questioning	Ending Unit Activity
Unit 1	Educational System	Design the Perfect School
Unit 2	Societal Definition of Success	Societal Progress Board Game
Unit 3	Economic Systems	Economic Life Flow Chart
Unit 4	Religion and Science	Scientific Religion Play
Unit 5	Justice System	None

Student Responsibilities:

1. Be ready to discuss
2. There are no right answer, only your answers
3. Question EVERYTHING, accept NOTHING
    a. Question the Question
4. Never say "It's just the way it is" (Look for deeper answers)
5. Take 1-3 notes on every video (Think sticky notes, not academic notes)

Absences:

Any absence that is not pre-approved will result in a zero for the day's class engagement score. These points can be regained with a small make-up assignment tailored to the individual student. It is the student's responsibility to contact the instructor about the make-up assignment. Regardless of absence, the due date for assignments will not change. Therefore, students are still required turn in work on-time.

Late Assignments & Extensions:

Late journals will be assessed a penalty, but will NOT be accept at all beyond one week past the due date. Extensions for assignments can be acquired easily as long as A) the request is made at least one day prior to the due date, B) appropriate justification is given for why the work cannot be accomplished on time, and C) the student has a plan for how and when they will accomplish the work.

Appendix B: Inventory Packet

Section I: Aspiration Index (AI)

Instructions:

This set of questions asks you about goals you may have for the future. Rate each item by circling how important each goal is to you. Try to use the entire scale when rating items. That is, some of your answers will likely be at the lower end of the scale, some will be in the middle, and others will be at the higher end of the scale.

In the Future….

1. You will be physically healthy

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

2. Your name will be known by many people

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

3. You will have people comment often about how attractive you look

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

4. You will have a lot of expensive possessions

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

5. You will be famous

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

6. You will donate time or money to charity

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

7. You will feel good about your level of physical fitness

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

8. You will be the one in charge of your life

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

9. You will have good friends that you can count on

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

10. You will keep up with fashions in hair and clothing

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

11. You will have a job that pays well

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

12. You will share your life with someone you love

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

13. You will be admired by many people

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

14. At the end of your life, you will look back on your life as meaningful and complete

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

15. You will have people who care about you and are supportive

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

16. You will work for the betterment of society

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

17. You will achieve the “look” you’ve been after

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

18. You will deal effectively with problems that come up in your life

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

19. You will feel energetic and full of life

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

20. You will have a job with high social status

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

21. You will work to make the world a better place

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

22. You will successfully hide the signs of aging

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

23. Your name will appear frequently in the media

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

24. You will know people that you can have fun with

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

25. You will be relatively free from sickness

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

26. You will help others improve their lives

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

27. You will know and accept who you really are

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

28. You will be financially successful

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

29. You will do something that brings you much recognition

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

30. You will help people in need

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

31. You will have a couple of good friends that you can talk to about personal things

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

32. Your image will be one others find appealing

1	2	3	4	5
Not at all important	A little important	so/so	pretty important	very important

Section II: Cognitive & Affective Mindfulness Scale-Revised (CAMS – R)

Instructions:

Please respond to each item by circling the number that is most accurate for you.

1. It is easy for me to concentrate on what I am doing

1	2	3	4
Rarely/Not at All	Sometimes	Often	Almost Always

2. I can tolerate emotional pain

1	2	3	4
Rarely/Not at All	Sometimes	Often	Almost Always

3. I can accept things I cannot change

1	2	3	4
Rarely/Not at All	Sometimes	Often	Almost Always

4. I can usually describe how I feel at the moment in considerable detail

1	2	3	4
Rarely/Not at All	Sometimes	Often	Almost Always

5. I am easily distracted

1	2	3	4
Rarely/Not at All	Sometimes	Often	Almost Always

6. It’s easy for me to keep track of my thought and feelings

1	2	3	4
Rarely/Not at All	Sometimes	Often	Almost Always

7. I try to notice my thoughts without judging them

1	2	3	4
Rarely/Not at All	Sometimes	Often	Almost Always

8. I am able to accept the thought and feelings I have

1	2	3	4
Rarely/Not at All	Sometimes	Often	Almost Always

9. I am able to focus on the present moment

1	2	3	4
Rarely/Not at All	Sometimes	Often	Almost Always

10. I am able to pay attention to one thing for a long period of time

1	2	3	4
Rarely/Not at All	Sometimes	Often	Almost Always

Section III: Mindful Attention Awareness Scale (MAAS)

Instructions:

Below is a collection of statements about everyday experiences. Please circle how frequently or infrequently you currently have each experience. Please answer according to what *really reflects* your experience rather than what you think your experience should be.

1. I could be experiencing some emotion and not be conscious of it until some time later

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

2. I break or spill things because of carelessness, not paying attention, or thinking of something else

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

3. I find it difficult to stay focused on what's happening in the present

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

4. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

6. I forget a person's name almost as soon as I've been told it for the first time

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

7. It seems I am "running on automatic" without much awareness of what I'm doing

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

8. I rush through activities without being really attentive to them

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

9. I get so focused on the goal I want to achieve that I lose touch with what I am doing right now to get there

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

10. I do jobs or tasks automatically, without being aware of what I'm doing

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

11. I find myself listening to someone with one ear, while doing something else at the same time

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

12. When traveling to places, I find myself on "automatic pilot" and then wonder why I went there

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

13. I find myself preoccupied with the future or the past

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

14. I find myself doing things without paying attention

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

15. I snack without being aware that I'm eating

1	2	3	4	5	6
almost never	very infrequently	somewhat infrequently	somewhat frequently	very frequently	almost always

Section IV: Gerotranscendence Scale – Revised (GS – R)

Instructions:

Please indicate how well each statement below agrees with your own personal experiences and feelings by circling the appropriate rating.

1. I feel a connection with earlier generations

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

2. Knowing that life on earth will continue after my death is more important than my individual life

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

3. I feel a part of the entire universe

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

4. I feel that I am a part of everything alive

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

5. I am afraid of death

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

6. Some things that happen in life cannot be explained by logic and science and need to be left unresolved

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

7. It seems unfair that I must die sometime when life on earth just continues

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

8. Sometimes I feel like I live in a past and present simultaneously

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

9. I can feel a strong presence of people who are elsewhere

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

10. Genealogy research (the study of one's own ancestors) seems interesting to me

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

11. The life I have lived has coherence and meaning

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

12. My life feels chaotic and disrupted

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

13. I take myself very seriously

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

14. To be honest, I must say that I am the most important thing in the world

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

15. I find it easy to laugh at myself

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

16. My personality has both female and male components

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

17. I like meeting with new people

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

18. I like to be by myself better than being with others

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

19. I need something going on all the time in order to feel good

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

20. I find it easy to give other people good advice

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

21. Being at peace and philosophizing by myself is important for my well-being

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

22. I find it easy to see what's right and wrong in other people's behavior

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

23. I am often afraid of asking stupid questions and embarrassing myself in front of others

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

24. For me, having a high material standard is among the most important things in my life right now

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

25. For me, being active in my work and other things is among the most important things in my life right now

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

Section V: Adult Self – Transcendence Inventory (ASTI)

Instructions:

Please respond to the following items by comparing yourself today with how you felt 2 years ago.

1. I am more likely to engage in quiet contemplation

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

2. I feel that my individual life is a part of a greater whole

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

3. I have become less concerned about other people's opinions of me

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

4. I feel that my life has less meaning

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

5. I am more focused on the present

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

6. I feel a greater sense of belonging with both earlier and future generations

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

7. My peace of mind is not so easily upset as it used to be

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

8. I feel more isolated and lonely

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

9. I am less interested in seeking out social contacts

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

10. My sense of self has decreased as I have gotten older

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

11. My sense of self is less dependent on other people and things

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

12. I do not become angry as easily

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

13. I take myself less seriously

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

14. I have less patience with other people

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

15. I find more joy in life

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

16. Material things mean less to me

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

17. I am less optimistic about the future of humanity

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

18. I feel much more compassionate, even toward my enemies

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

Section VI: Self-Transcendence Scale (STS)

Instructions:

Please circle how the following items have grown in importance over the last 2 years.

1. Having hobbies and interests I can enjoy

1	2	3	4
Not at all	Very little	Somewhat	Very much

2. Accepting myself as I grow older

1	2	3	4
Not at all	Very little	Somewhat	Very much

3. Being involved with other people or my community when possible

1	2	3	4
Not at all	Very little	Somewhat	Very much

4. Adjusting well to my present life situation

1	2	3	4
Not at all	Very little	Somewhat	Very much

5. Adjusting well to changes in my physical abilities

1	2	3	4
Not at all	Very little	Somewhat	Very much

6. Sharing my wisdom or experience with others

1	2	3	4
Not at all	Very little	Somewhat	Very much

7. Finding meaning in my past experiences

1	2	3	4
Not at all	Very little	Somewhat	Very much

8. Helping others in some way

1	2	3	4
Not at all	Very little	Somewhat	Very much

9. Having ongoing interest in learning

1	2	3	4
Not at all	Very little	Somewhat	Very much

10. Able to move beyond things that once seemed so important

1	2	3	4
Not at all	Very little	Somewhat	Very much

11. Accepting death as a part of life

1	2	3	4
Not at all	Very little	Somewhat	Very much

12. Finding meaning in my spiritual life

1	2	3	4
Not at all	Very little	Somewhat	Very much

13. Letting others help me when I may need it

1	2	3	4
Not at all	Very little	Somewhat	Very much

14. Enjoying my pace of life

1	2	3	4
Not at all	Very little	Somewhat	Very much

15. Letting go of my past losses

1	2	3	4
Not at all	Very little	Somewhat	Very much

Section VII: Toronto Empathy Questionnaire (TEQ)

Instructions:

Below is a list of statements. Please read each statement carefully and rate how frequently you feel or act in the manner described.

1. When someone else is feeling excited, I tend to get excited too

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

2. Other people's misfortunes do not disturb me a great deal

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

3. It upsets me to see someone being treated disrespectfully

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

4. I remain unaffected when someone close to me is happy

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

5. I enjoy making other people feel better

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

6. I have tender, concerned feelings for people less fortunate than me

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

7. When a friend starts to talk about his/her problems, I try to steer the conversation towards something else

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

8. I can tell when others are sad even when they do not say anything

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

9. I find that I am "in tune" with other people moods

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

10. I do not feel sympathy for people who cause their own serious illnesses

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

11. I become irritated when someone cries

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

12. I am not really interested in how other people feel

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

13. I get a strong urge to help when I see someone who is upset

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

14. When I see someone being treated unfairly, I do not feel very much pity for them

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

15. I find it silly for people to cry out of happiness

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

16. When I see someone being taken advantage of, I feel kind of protective towards him/her

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

Section VIII: Narcissistic Personality Inventory (NPI)

Instructions:

For each question below please choose only one option, either A or B, which most accurately reflects your personality. If neither option fits you, chose whichever is least inaccurate. Do not skip or leave any question unanswered.

1.	A) I have a natural talent for influencing people	B) I am not good at influencing people
2.	A) Modesty doesn't become me	B) I am essentially a modest person
3.	A) I would do almost anything on a dare	B) I tend to be a fairly cautious person
4.	A) When people compliment me I sometimes get embarrassed	B) I know that I am good because everybody keeps telling me so
5.	A) The thought of ruling the world frightens the hell out of me	B) If I ruled the world it would be a better place
6.	A) I can usually talk my way out of anything	B) I try to accept the consequences of my behavior
7.	A) I prefer to blend in with the crowd	B) I like to be the center of attention
8.	A) I will be a success	B) I am not too concerned about success
9.	A) I am not better or worse than most people	B) I think I am a special person
10.	A) I am not sure if I would make a good leader	B) I see myself as a good leader
11.	A) I am assertive	B) I wish I were more assertive
12.	A) I like to have authority over other people	B) I don't mind following orders
13.	A) I find it easy to manipulate people	B) I don't like it when I find myself manipulating people
14.	A) I insist upon getting the respect that is due to me	B) I usually get the respect that I deserve
15.	A) I don't particularly like to show off my body	B) I like to show off my body
16.	A) I can read people like a book	B) People are sometimes hard to understand
17.	A) If I feel competent I am willing to take responsibility for making decisions	B) I like to take responsibility for making decisions
18.	A) I just want to be reasonably happy	B) I want to amount to something in the eyes of the world
19.	A) My body is nothing special	B) I like to look at my body
20.	A) I try not to be a show off	B) I will usually show off if I get the chance

21.	A) I always know what I'm doing	B) Sometimes I am not sure what I am doing
22.	A) I sometimes depend on people to get things done	B) I rarely depend on anyone else to get things done
23.	A) Sometimes I tell good stories	B) Everybody likes to hear my stories
24.	A) I expect a great deal from other people	B) I like to do things for other people
25.	A) I will never be satisfied until I get all that I deserve	B) I take my satisfactions as they come
26.	A) Compliments embarrass me	B) I like to be complimented

Section IX: Demographics Questionnaire

1. What is your age?

2. What is your Gender? Male / Female

3. What is your year in school? 9 10 11 12 College

4. What is your nationality (country of citizenship)? Circle only one. Two if a dual citizen.

American	Japanese	Taiwanese	Chinese	Korean
Samoan	Filipino	Other (Please specify) _____		

5. Please rate the degree to which you personally identify with your nationality

1	2	3	4
Not at all	Very little	Somewhat	Very much

6. What is your ethnicity? (Circle all that apply)

Caucasian	Japanese	Chinese	Korean	Samoan
Filipino	African American	Latino	Other (Please Specify)_____	

7. Please rate the degree to which you personally identify with your ethnicity

1	2	3	4
Not at all	Very little	Somewhat	Very much

8. Were you raised in a religious or spiritual household? If so, what religious or spiritual faith was practiced?

Buddhism	Christianity	Islam	Judaism	Shintoism	Daoism
Hinduism	Atheism	Agnosticism	Spiritual, but not religious affiliation		Other (Please specify)

9. Do you personally identify yourself as a member of a particular religious or spiritual group?

Buddhism	Christianity	Islam	Judaism	Shintoism	Daoism
Hinduism	Atheism	Agnosticism	Spiritual, but not religious affiliation		Other (Please specify)

10. Please rate the degree to which you personally identify with your religious or spiritual group

1	2	3	4
Not at all	Very little	Somewhat	Very much

11. To the best of your knowledge, please rate your family's economic status

1	2	3	4
Low Income	Lower Middle Class	Upper Middle Class	High Income

12. How well do you feel your home life and family education encouraged you to develop your own unique sense of self?

1	2	3	4
Not at all	Very little	Somewhat	Very much

13. How well do you feel your home life and family education encouraged you to live in the present moment and focus on the positive moments of the day?

1	2	3	4
Not at all	Very little	Somewhat	Very much

14. How well do you feel your home life and family education encouraged you to develop a greater sense of personal connection with the world as a whole?

1	2	3	4
Not at all	Very little	Somewhat	Very much

Appendix C: Qualitative Interview Questions

Instructions: The following qualitative open-response questions are intended to gain a deeper understanding of your sense of identity, worldview, and values. As such please answer each question as descriptively as possible, and avoid superficial responses that are only a few sentences. Further, despite the abstract nature of the below questions, please provide relevant personal examples of how your answers manifest themselves in your thoughts and actions.

1. Describe the unique contribution and value you hope to bring to the world in the future.
    a. Explain how these particular contributions are important to you in your life?
2. At the end of your life when you look back, describe the accomplishments that would make you feel that your life had been valuable, fulfilling, and complete.
    a. Explain what make these particular accomplishments necessary for your life fulfillment?
3. Explain in what ways you agree and/or disagree with the following statement, "The more wealth and possessions you have, the more you have to worry and be unhappy about."
4. In what ways have your life experiences encouraged and/or hindered the development of your own unique identity and set of talents?
5. Explain what it means to you if someone says that "each of us has an intimate and inseparable connection to the greater whole of humanity, nature, and the cosmos."
    a. What values, experiences, and/or beliefs make you agree or disagree with this statement?
6. Describe a time in your life when you felt like your sense of a separate self, identity, and/or ego dissolved, and you were connected to something greater than yourself. (Note: this connection does not have to be spiritual or religious).
7. Describe your connection to your community on a local, national, and global level.
    a. What do you see as your roles and responsibilities to those communities?
    b. How does your day-to-day living impact each of these communities?
8. Describe a major positive event or experience in your life that you feel has greatly shaped your sense of identity, worldview perspective, and/or relationship with others and the world.
    a. In what specific ways were you changed by this event or experience?

9. Describe a major negative event or experience in your life that you feel has greatly shaped your sense of identity, worldview perspective, and/or relationship with others and the world.

    a. How did you cope with this event or experience, and what coping methods and strategies did you use during this period time?

    b. In what specific ways were you changed by this event or experience?

10. Explain what it means to you when someone says to “live in the present moment.”

11. Given the choice between a life of constant excitement and novelty, or one of deep meaning and connection to others, describe what factors you’d consider in making this decision.

    a. What make these factors important to consider for your life?

12. How often do you consider your own mortality?

Describe the thoughts and emotions that arise when you contemplate your mortality.

Appendix D: Assent Forms

There were a total of four consent and asset forms used the different participant groups: 1) Never took treatment course, 2) Previous took treatment course, 3) Taking treatment course during study, and 4) Requested for qualitative interview. Forms given to adolescents and parents were all identical except that all references to "you" in the assent forms were changed to "your child" in the consent forms. As such, only the assent forms are provided here.

University of Hawai'i

Department of Educational Psychology

Assent to Participate in Research Study:

Development of Personal Growth through Structured Education – Non-Treatment

You have been invited to participate in a scientific research study to understand the development of positive personal growth traits, such as empathy, self-confidence, and humility, as a result of both life experience and directed education. The purpose of this research is to determine and validate methods which can facilitate positive personal growth through a structured educational curriculum. My name is Steven James and I am a PhD student at the University of Hawai'i at Manoa (UH), in the Department of Educational Psychology, as well as a high school instructor at Pacific Buddhist Academy. As the principle investigator of this study I will be the researcher who will be collecting and analyzing all data. The supervising for this study professor is Dr. Michael Salzman, who is a faculty member in the Department of Educational Psychology. I ask for your assent to participant in this research study

Study Description - Activities and Time Commitment: If you participate, I will ask him/her a set of ten written surveys, one demographic and nine published scientific instruments. The expected time to complete these surveys is approximately one and a half hours. Except for the demographic survey which has some open response questions, the questions asked will take the form of either a ratings scale, or choosing the better of two options. An example ratings scale would give four possible ratings: Strongly Disagree, Disagree, Agree, and Strongly Agree. One example of the types of questions I will ask you is, "I can accept things I cannot change." In order to ascertain the degree of natural change and maturation in the responses, the surveys will be given twice with approximately six weeks between sessions. As a result the total expected time for this research study is three hours. If you would like to see a copy of all of all questions to be asked, please contact me and I will gladly provide them. My contact information is listed near the end of the assent form.

Benefits and Risks: There are potential benefits to you for participating in this research study, including gaining a better understanding of beliefs, values, and motivations which can be explored and built upon for greater personal growth. The results of this study are meant to provide paths to creating more holistic methods of education, which can be used to promote the development of greater self-acceptance, empathy, connection, and life engagement. Future education and student may benefit greatly from such advances in psychology. There is little or no risk to you for participating in this study. However, if you become uncomfortable in any way during the surveys, I will take necessary step rectify any issues. These may include skipping questions, taking a break, or stopping the survey entirely.

Confidentiality and Privacy: All the information that I collect will remain confidential. During this research study, I will keep survey data in a secure controlled location. The survey data will be transcribed into electronic form, but participant identities will be coded and no direct identifiers will be included. The transcribed electronic data will be encoded and password protected. Only my advisor and I will have access to the data, although legally authorized agencies, including the University of Hawai'i Committee on Human Studies, have the right to review research records.

When I report the results of this research study, I will not use your name or any other personally identifying information. If you would like a copy of our final report, please feel free to contact me.

Voluntary Participation: Participation in this research study is voluntary. You may choose freely whether to participate. Further, at any point during this study you may withdraw your assent. Non-participation or withdrawal of assent will result in **no** penalty or loss of benefits. This includes impact to your relationship with their school and instructors, and your current or future academic standing.

Questions: If you have any questions about this study, please contact Steven James ((808) 321-2367, jamessp@hawaii.edu) or Dr. Michael Salzman ((808) 956-4300, msalzman@hawaii.edu). If you have any questions about your rights as research participants, you can contact the University of Hawai'i, Committee on Human Studies (CHS), by phone at (808) 956-5007, or by e-mail at uhirb@hawaii.edu.

Please keep this portion of this assent form for your records.

If you assent to participating in this study, please sign the following portion of this assent form and return it to one of the researchers.

Tear or cut here

[Coded Participant Identifier]

Signature(s) for Assent:

I agree to participate in the research study entitled, *Development of Personal Growth through Structured Education.* I have read the information above and I understand that I can change my mind about participation at any time by notifying the researcher of my decision to end participation in the study.

Phone Number: _____ **Email:** _____

Name (Print): _____

Signature: _____

Date: _____

University of Hawai'i

Department of Educational Psychology

Assent to Participate in Research Study:

Development of Personal Growth through Structured Education – Post-Treatment

You have been invited to participate in a scientific research study to understand the development of positive personal growth traits, such as empathy, self-confidence, and humility, as a result of both life experience and directed education. The purpose of this research is to determine and validate methods which can facilitate positive personal growth through a structured educational curriculum. Such a curriculum was previous undertaken by you in a course titled *The Psychology of Peace & Conflict*, which is part of your normal course sequence at Pacific Buddhist Academy (PBA). This research will further attempt to ascertain the effectiveness of various aspects of that curriculum. My name is Steven James and I am a PhD student at the University of Hawai'i at Manoa (UH), in the Department of Educational Psychology, as well as a high school instructor at Pacific Buddhist Academy. As the principle investigator of this study I will be the researcher who will be collecting and analyzing all data. The supervising for this study professor is Dr. Michael Salzman, who is a faculty member in the Department of Educational Psychology. I ask for your assent to participant in this research study

Study Description - Activities and Time Commitment: If you participate, I will ask him/her a set of ten written surveys, one demographic and nine published scientific instruments. The expected time to complete these surveys is approximately one and a half hours. Except for the demographic survey which has some open response questions, the questions asked will take the form of either a ratings scale, or choosing the better of two options. An example ratings scale would give four possible ratings: Strongly Disagree, Disagree, Agree, and Strongly Agree. Questions will mostly relate to general values, beliefs, and aspirations, and may refer back to the peace studies course your child previously took. One example of the types of questions I will ask you is, "I can accept things I cannot change." In order to ascertain the degree of natural change and maturation in the responses, the surveys will be given twice with approximately six weeks between sessions. As a result the total expected time for this research study is three hours. If you would like to see a copy of all of all questions to be asked, please contact me and I will gladly provide them. My contact information is listed near the end of the assent form.

Benefits and Risks: There are potential benefits to you for participating in this research study, including gaining a better understanding of beliefs, values, and motivations which can be explored and built upon for greater personal growth. The results of this study are meant to provide paths to creating more holistic methods of education, which can be used to promote the development of greater self-acceptance, empathy, connection, and life engagement. Future education and student may benefit greatly from such advances in psychology. There is little or no risk to you for participating in this study. However, if you become uncomfortable in any way during the surveys, I will take necessary step rectify any issues. These may include skipping questions, taking a break, or stopping the survey entirely.

Confidentiality and Privacy: All the information that I collect will remain confidential. During this research study, I will keep survey data in a secure controlled location. The survey data will be transcribed into electronic form, but participant identities will be coded and no direct identifiers will be included. The transcribed electronic data will be encoded and password protected. Only my advisor

and I will have access to the data, although legally authorized agencies, including the University of Hawai'i Committee on Human Studies, have the right to review research records.

When I report the results of this research study, I will not use your name or any other personally identifying information. If you would like a copy of our final report, please feel free to contact me.

Voluntary Participation: Participation in this research study is voluntary. You may choose freely whether to participate. Further, at any point during this study you may withdraw your assent. Non-participation or withdrawal of assent will result in **no** penalty or loss of benefits. This includes impact to your relationship with the school and instructors, and your current or future academic standing.

Questions: If you have any questions about this study, please contact Steven James ((808) 321-2367, jamessp@hawaii.edu) or Dr. Michael Salzman ((808) 956-4300, msalzman@hawaii.edu). If you have any questions about your rights as research participants, you can contact the University of Hawai'i, Committee on Human Studies (CHS), by phone at (808) 956-5007, or by e-mail at uhirb@hawaii.edu.

Please keep this portion of this assent form for your records.

If you assent to participating in this study, please sign the following portion of this assent form and return it to one of the researchers.

Tear or cut here

[Coded Participant Identifier]

Signature(s) for Assent:

I agree to participate in the research study entitled, *Development of Personal Growth through Structured Education.* I have read the information above and I understand that I can change my mind about participation at any time by notifying the researcher of my decision to end participation in the study.

Phone Number: _____ **Email:** _____

Name (Print): _____

Signature: _____

Date: _____

University of Hawai'i

Department of Educational Psychology

Assent to Participate in Research Study:

Development of Personal Growth through Structured Education – Pre-Treatment

You have been invited to participate in a scientific research study to understand the development of positive personal growth traits, such as empathy, self-confidence, and humility, as a result of both life experience and directed education. The purpose of this research is to determine and validate methods which can facilitate positive personal growth through a structured educational curriculum. Such a curriculum will be undertaken by you in a course titled *The Psychology of Peace & Conflict*, which is part of your normal course sequence at Pacific Buddhist Academy (PBA). This research will further attempt to ascertain the effectiveness of various aspects of that curriculum. My name is Steven James and I am a PhD student at the University of Hawai'i at Manoa (UH), in the Department of Educational Psychology, as well as a high school instructor at Pacific Buddhist Academy. As the principle investigator of this study I will be the researcher who will be collecting and analyzing all data. The supervising for this study professor is Dr. Michael Salzman, who is a faculty member in the Department of Educational Psychology. I ask for your assent to participant in this research study

Study Description - Activities and Time Commitment: If you participate, I will ask him/her a set of ten written surveys, one demographic and nine published scientific instruments. The expected time to complete these surveys is approximately one and a half hours. Except for the demographic survey which has some open response questions, the questions asked will take the form of either a ratings scale, or choosing the better of two options. An example ratings scale would give four possible ratings: Strongly Disagree, Disagree, Agree, and Strongly Agree. Questions will mostly relate to general values, beliefs, and aspirations, and may refer back to the peace studies course. One example of the types of questions I will ask you is, "I can accept things I cannot change." In order to ascertain the degree of change and maturation in the responses the surveys will be given twice, once at the beginning of the course, and once at the end. As a result the total expected time for this research study activities is three hours. Should your child not participate in research project, they will be given an equivalently alternative writing assignment appropriate for the course during the survey sessions. If you would like to see a copy of all of all questions to be asked, please contact me and I will gladly provide them. My contact information is listed near the end of the assent form.

Additionally, classwork and homework are valuable data sources for this research study. These will include items such as reflective journals, and artistically creative in-class group projects. These assignments are part of the courses standard curriculum and no additional work will be given as a result of participating in this study. If you participate in the study these student products will be used in the post-course data analysis.

Benefits and Risks: There are potential benefits to you for participating in this research study, including gaining a better understanding of beliefs, values, and motivations which can be explored and built upon for greater personal growth. The results of this study are meant to provide paths to creating more holistic methods of education, which can be used to promote the development of greater self-acceptance, empathy, connection, and life engagement. As part of the group of students who will

undertake this course, you may gain some or all of these benefits. Further, as these methods are better understood and implemented, future education and student may benefit greatly from such advances in psychology. There is little or no risk to you for participating in this study. However, if you become uncomfortable in any way during the surveys, I will take necessary step rectify any issues. These may include skipping questions, taking a break, or stopping the survey entirely.

Confidentiality and Privacy: All the information collected will remain confidential. During this research study, consent forms, assent forms, and survey data will be kept in a secure controlled location by the PBA headmaster, Josh Hernandez Morse. As the course instructor and researcher, I will not be given any knowledge of who the study participants are until after final grades are assigned. Once grades are finalized the data will be transferred to me, as the principle investigator, and will again be kept in a secure controlled location. The survey data will be transcribed into electronic form, but participant identities will be coded and no direct identifiers will be included. The transcribed electronic data will be encoded and password protected. Only my advisor, the PBA headmaster, and I will have access to the data, although legally authorized agencies, including the University of Hawai'i Committee on Human Studies, have the right to review research records.

When I report the results of this research study, I will not use your name or any other personally identifying information. If you would like a copy of our final report, please feel free to contact me.

Voluntary Participation: Participation in this research study is voluntary. You may choose freely whether to participate. Further, at any point during this study you may withdraw your assent. Non-participation or withdrawal of assent will result in **no** penalty or loss of benefits. This includes impact to your relationship with the school and instructors, and your current or future academic standing.

Questions: If you have any questions about this study, please contact Steven James ((808) 321-2367, jamessp@hawaii.edu) or Dr. Michael Salzman ((808) 956-4300, msalzman@hawaii.edu). If you have any questions about your rights as research participants, you can contact the University of Hawai‘i, Committee on Human Studies (CHS), by phone at (808) 956-5007, or by e-mail at uhirb@hawaii.edu.

Please keep this portion of this assent form for your records.

If you assent to participating in this study, please sign the following portion of this assent form and return it to one of the researchers.

[Coded Participant Identifier]

Signature(s) for Assent:

Please put an X next to the data types which you assent for use in this research study.

☐ Survey data taken at the beginning and end of the class

☐ Student coursework produced throughout the class

I agree to participate in the research study entitled, *Development of Personal Growth through Structured Education* and give consent to use the data types marked above. I have read the information above and I understand that I can change my mind about participation at any time by notifying the researcher of my decision to end participation in the study.

Phone Number: _____ **Email:** _____

Name (Print): _____

Signature: _____

Date: _____

University of Hawai'i

Department of Educational Psychology

Assent to Participate in Research Study:

Development of Personal Growth through Structured Education – Interview

Earlier in 2016, you participated in a research study by answering a set of survey questions. These quantitative responses are greatly appreciated and contributed to the success of that phase of the research. As a follow up, we are asking a subset of the initial participants if they would be interviewed to better understand their development in a more deeply qualitative manner. You have been invited to participate in this second phase of the scientific research study to understand the development of positive personal growth traits, such as empathy, self-confidence, and humility, as a result of both life experience and directed education. The purpose of this research is to determine and validate methods which can facilitate positive personal growth through a structured educational curriculum. My name is Steven James and I am a PhD student at the University of Hawai'i at Manoa (UH), in the Department of Educational Psychology, as well as a high school instructor at Pacific Buddhist Academy. As the principle investigator of this study I will be the researcher who will be collecting and analyzing all data. The supervising professor for this study is Dr. Michael Salzman, who is a faculty member in the Department of Educational Psychology. I ask for your assent to participate in this second phase of the research study.

Study Description - Activities and Time Commitment: If you participates, I will ask him/her 12 opened interview questions that is expected to take approximately 45 minutes to complete. These questions center upon your sense of identity, worldview, values, and connection with others as well as the personal experiences that have engenders these life perspectives. The interview responses will be audio recorded for later transcription, but you or your parent/guardian may decline to be record in which case detailed written notes will be taken instead. Some example interview questions are "Describe a major positive event or experience in your life that you feel has greatly shaped your sense of identity, worldview perspective, and/or relationship with others and the world," or "At the end of your life when you look back, describe the accomplishments that would make you feel that your life had been valuable, fulfilling, and complete." If you would like to see a copy of all the questions to be asked, please contact me and I will gladly provide them. My contact information is listed near the end of the assent form.

Benefits and Risks: There are potential benefits to you for participating in this research study, including gaining a better understanding of their beliefs, values, and motivations which can be explored and built upon for greater personal growth. The results of this study are meant to provide paths to creating more holistic methods of education, which can be used to promote the development of greater self-acceptance, empathy, connection, and life engagement. Future education and students may benefit greatly from such advances in psychology. There is little or no risk to you in participating in this study. However, if you become uncomfortable in any way during the interview, I will take necessary step rectify any issues. These may include skipping questions, taking a break, stopping the interview entirely.

Confidentiality and Privacy: All the information that I collect will remain confidential. During this research study, I will keep interview data in a secure controlled location. The interview data will be transcribed into electronic form, but participant identities will be coded and no direct identifiers will be included. The transcribed electronic data will be encoded and password protected. After the audio

recordings are transcribed, they will be destroyed to perverse your privacy. Only my advisor and I will have access to the data, although legally authorized agencies, including the University of Hawai'i Committee on Human Studies, have the right to review research records.

When I report the results of this research study, I will not use your name or any other personally identifying information. If you would like a copy of our final report, please feel free to contact me.

Voluntary Participation: Participation in this research study is voluntary. You may choose freely whether to participate. Further, at any point during this study you may withdraw your assent. Declining or withdrawing from this interview phase of the research study will not impact your previous participation in the first survey phase. Non-participation or withdrawal of assent will result in **no** penalty or loss of benefits. This includes impact to your relationship with your school and instructors, and your current or future academic standing.

Questions: If you have any questions about this study, please contact Steven James ((808) 321-2367, jamessp@hawaii.edu) or Dr. Michael Salzman ((808) 956-4300, msalzman@hawaii.edu). If you have any questions about your rights as research participants, you can contact the University of Hawai'i, Committee on Human Studies (CHS), by phone at (808) 956-5007, or by e-mail at uhirb@hawaii.edu.

Please keep this portion of this assent form for your records.

If you assent to participating in this study, please sign the following portion of this assent form and return it to one of the researchers.

Tear or cut here

[Coded Participant Identifier]

Signature(s) for Assent:

I agree to participate in the second interview phase of the research study entitled, *Development of Personal Growth through Structured Education.* I have read the information above and I understand that I can change my mind about participation at any time by notifying the researcher of my decision to end participation in the study.

Phone Number: _____ **Email:** _____

Name (Print): _____

Signature: _____

Date: _____

Appendix E: Human Studies Approval Memorandums

Office of Research Compliance
Human Studies Program

UNIVERSITY of HAWAI'I MĀNOA

MEMORANDUM

April 4, 2016

TO: Steven James
Principal Investigator
Educational Psychology

FROM: Denise A. Lin-DeShetler, MPH, MA
Director

SUBJECT: CHS #23858- "Development of a Transcendent Ontological Worldview (Development of Personal Growth Through Structured Education)"

Under an expedited review procedure, the research project identified above was approved for one year on April 1, 2016 by the University of Hawaii (UH) Human Studies Program. The application qualified for expedited review under CFR 46.110 and 21 CFR 56.110, Category (7).

This memorandum is your record of the Human Studies Program approval of this study. Please maintain it with your study records.

The Human Studies Program approval for this project will expire on March 31, 2017. If you expect your project to continue beyond this date, you must submit an application for renewal of this Human Studies Program approval. The Human Studies Program approval must be maintained for the entire term of your project.

If, during the course of your project, you intend to make changes to this study, you must obtain approval from the Human Studies Program prior to implementing any changes. If an Unanticipated Problem occurs during the course of the study, you must notify the Human Studies Program within 24 hours of knowledge of the problem. A formal report must be submitted to the Human Studies Program within 10 days. The definition of "Unanticipated Problem" may be found at: https://manoa.hawaii.edu/researchcompliance/policies-guidance and the report form may be downloaded here: https://manoa.hawaii.edu/researchcompliance/report-protocol-violation-or-unanticipated-problem.

You are required to maintain complete records pertaining to the use of humans as participants in your research. This includes all information or materials conveyed to and received from participants as well as signed consent forms, data, analyses, and results. These records must be maintained for at least three years following project completion or termination, and they are subject to inspection and review by the Human Studies Program and other authorized agencies.

1960 East-West Road
Biomedical Sciences Building B104
Honolulu, Hawai'i 96822
Telephone: (808) 956-5007
Fax: (808) 956-8683

Please notify this office when your project is complete. Upon notification, we will close our files pertaining to your project. Reactivation of the Human Studies Program approval will require a new Human Studies Program application.

Please contact this office if you have any questions or require assistance. We appreciate your cooperation, and wish you success with your research.

Office of Research Compliance
Human Studies Program

UNIVERSITY of HAWAI'I SYSTEM

MEMORANDUM

December 15, 2016

TO: Steven James
Principal Investigator
Educational Psychology

FROM: Denise A. Lin-DeShetler, MPH, MA
Director

SUBJECT: CHS #23858 – "Development of a Transcendent Ontological Worldview (Development of Personal Growth Through Structured Education)"

Your application for the Human Studies Program approval of a proposed change for the study identified above was approved by the Human Studies Program on December 9, 2016. The approved changes were for the addition of a supplementary data collection to a subset of participants who participated in the first data collection (approximately 16 participants) and a new consent/assent forms. This application qualified for Expedited Review under CFR 46.110 and 21 CFR 56.110, Category (b). Note that this approval date is for the proposed revision, and does not reset the annual study expiration date. Please refer back to your most recent IRB approval letter (initial application or continuing review) for the study's expiration date. Regulations require that continuing review be conducted on or before the one-year anniversary date of IRB approval.

If future revisions to your study are required, please seek the Human Studies Program approval prior to their implementation. If a change is necessary to protect the safety or welfare of study participants, it is permissible to make the change without prior approval. However, you must notify the Human Studies Program as soon as possible, requesting approval for the change.

When seeking approval to modify a Human Studies Program-approved document, please submit the document using "Track Changes" to identify the proposed modifications. Clearly explain the reason for the change on the Human Studies Modification form.

Please contact the Human Studies Program office at 956-5007 if you have any questions or require assistance.

2425 Campus Road, Sinclair 10
Honolulu, Hawai'i 96822
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An Equal Opportunity/Affirmative Action Institution

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